I. INTRODUCTION

This report was prepared by Page & Turnbull at the request of the Alameda Reuse and Redevelopment Authority (ARRA). The purpose of this report is to describe the existing conditions present at the Alameda Naval Air Station (NAS Alameda) prior to its redevelopment as a mixed-use project area consisting of new market rate and affordable housing, commercial and light industrial facilities and public open space. This report will primarily concentrate on the relative significance of resources on the former naval air station, as well as provide a baseline level of information about NAS Alameda. Following the Introduction, Section II includes a brief description of NAS Alameda and discusses the proposed project. Section III summarizes the current historic status of NAS Alameda and Section IV discusses the history of the former base. Section V describes the historic district and character-defining features of its contributing buildings and structures. Section VI includes the historic preservation strategy. The report concludes with a Bibliography and Appendix including relevant bibliographic sources and support documents.

II. SETTING

NAS Alameda was constructed in the late 1930s and early 1940s on filled tidal lands and marshes on the western end of the City of Alameda, an urban island community of 72,259 people located near the geographical center of the San Francisco Bay Area. The former naval air station is bounded by Oakland Inner Harbor to the north, San Francisco Bay to the south and west and residential neighborhoods of Alameda to the east. The former base occupies 1,734 acres of dry land and 1,108 acres of submerged lands laying largely within the City of Alameda. There is also a small section of filled land and submerged lands lying within the City and County of San Francisco. Occupying a total of 2,842 acres, NAS Alameda is currently the fourth largest naval property in the San Francisco Bay Area **(Figure 1)**.

NAS Alameda was commissioned in 1940; two years of active dredging, filling and construction operations were required to convert a former Army airfield, civilian airport and municipal marina into the most important naval air station on the West Coast during the Second World War. The Japanese attacks on Pearl Harbor and other American bases and possessions on December 7, 1941 unleashed a major expansion at NAS Alameda. Serving as a logistical supply base, aircraft repair facility, seaplane base and homeport for dozens of aircraft carriers and other naval vessels during the Second World War and the Korean and Vietnam Wars, the base continued in operation until 1993 when it was included on a list of bases to be decommissioned by the Base Realignment and Closure Commission (BRAC). Following BRAC's decision to close NAS Alameda, the Navy began preparations to decommission the base and turn it over to the City of Alameda. Although the Navy withdrew in 1997, the former base has not yet been transferred to the City. Today, the former base consists of an airfield with two runways, a seaplane lagoon, nine massive hangars and millions of square feet of industrial, warehousing, administrative, residential and recreational space, much of it presently vacant.

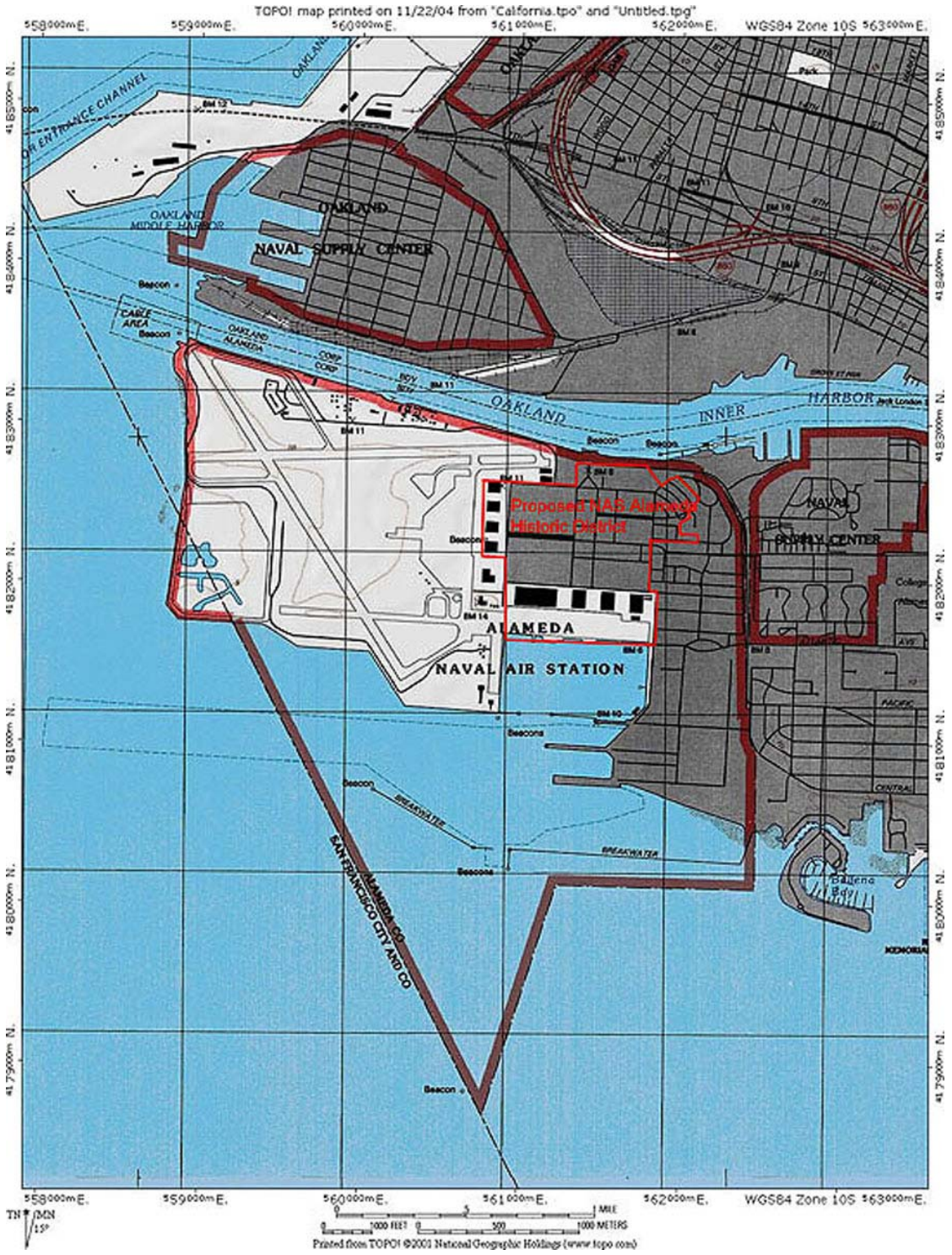

Figure 1. USGS Map showing location of NAS Alameda

III. CURRENT HISTORIC STATUS

Woodbridge Inventory
In 1992, prior to the closure of NAS Alameda, the Navy retained architectural historian Sally Woodbridge to survey all buildings on the base constructed prior to 1946 and assess their potential significance. Woodbridge determined that while no buildings appeared to be individually eligible for listing in the National Register, a potential historic district comprised of buildings, structures and landscapes dating to the pre-war and World War II periods existed at the core of the base. Consisting of eighty-five contributing buildings built between 1939 and 1945, the NAS Alameda Historic District (Historic District) was found to qualify for listing in the National Register under Criteria A (Events) and C (Architecture) **(Figure 2)**. The Navy and the California Office of Historic Preservation (OHP) concurred with the findings and OHP formally listed the district as being eligible for listing in the National Register.[1] The number of contributing buildings was revised to eighty-seven in a memorandum to OHP from the Navy, dated October 3, 1997 and acknowledged by OHP in a letter to the Navy dated November 5, 1997. In 2003, one contributor, Building 101, was lost in a fire, reducing the total number of contributors to eighty-six.

NAS Alameda Community Reuse Plan
In 1996, prior to the decommissioning of NAS Alameda, the City and ARRA adopted the *NAS Alameda Community Reuse Plan* (CRP), a "visioning" document designed to guide the City's incorporation of base into the city and its conversion to civilian use. Although this document covers a variety of topics, it devotes relatively little space to cultural resources, including historic structures or landscapes. The only reference to the Historic District occurs in the Open Space and Conservation Element sections, where a brief discussion concludes with seven policies for the treatment of buildings within the Historic District boundaries.[2]

1996 Advisory Council for Historic Preservation Memorandum of Agreement
In 1996, a Memorandum of Agreement (MOA) was signed by the City, the Navy, OHP and the Advisory Council for Historic Preservation (ACHP). This document authorized the Navy's proposal to demolish six contributing buildings within the Historic District.[3] Although all six were deemed to be contributors to the Historic District, Buildings 75A (Officers' Bathhouse), 115 (Ambulance Garage), 116 (Rehabilitation Center), 130 (Medical Laboratory), 135 (Community Facilities) and 137 (Recreation Storage Facility) were determined to be of lesser significance. All were constructed after 1942 and were not part of the original base design drawn up by the Navy Bureau of Yards & Docks. Furthermore, all but one (Building 75A) were classified by the Navy as "temporary" or "semi-permanent" buildings when they were constructed during the Second World War. As such, these temporary buildings were utilitarian structures built with lower quality materials and less substantial construction techniques. Constructed in a hurry to meet the immediate needs of wartime exigencies, temporary and semi-permanent buildings were not intended to be retained indefinitely once the War had ended. Nevertheless, as contributors, mitigation measures were required to lessen the effect of their demolition. Accordingly, the MOA required the recordation of each building according to Historic American Buildings Survey (HABS) standards. The completed documentation was submitted to OHP, the City and the Alameda Historical Society. To date, none of the vacant buildings have been demolished, although all have been recorded.

Guide to Preserving the Character of the NAS Alameda Historic District
In 1997, prior to decommissioning NAS Alameda, the Navy retained JRP Historical Consulting Services to develop Design Guidelines to facilitate the preservation and maintenance of contributing buildings and

[1] Sally Woodbridge, *Historic Architectural Inventory for Naval Air Station* (Alameda, 1992).
[2] EDAW, Inc., *NAS Alameda Community Reuse Plan* (San Francisco, 1996), pp. 5-14-5-16.
[3] "Memorandum of Agreement Submitted to the Advisory Council on Historic Preservation Pursuant to 36 CFR, Section 800.6," on file with the City of Alameda.

landscapes within the Historic District. Prepared as a guide to assist the Alameda Planning & Building Department and the Historic Advisory Board (HAB) in evaluating proposed redevelopment projects, the Design Guidelines identified important character-defining features and established five sub-areas within the Historic District: (1) Administrative Core, (2) Land plane Hangars Area, (3) Seaplane Hangars Area, (4) Shops Area and (4) Residential Area.[4]

1999 Advisory Council for Historic Preservation Memorandum of Agreement
In September 1999, a second MOA was signed by the City, the Navy, OHP and ACHP. This document required the Navy to complete the following tasks related to historic preservation prior to transferring the base to Alameda: (1) prepare and submit a National Register nomination for the Historic District, (2) donate or permanently loan the inventory of historic artifacts from NAS Alameda to museums in Alameda or the Bay Area and (3) follow the *Maintenance and Repair Guidelines for the Naval Air Station Alameda Historic District* extracted from the JRP Consulting Services technical report of April 1997.[5] To date, the Navy has not completed the National Register nomination, although recent conversations indicate that they have identified funds and personnel who will begin the process.

NAS Alameda Listed as a Historic Monument
In September 1999, the City passed Resolution No. 13139, listing the NAS Alameda Historic District in the City's Historical and Cultural Monument List.

Environmental Compliance
In 1999, the Navy completed a Final Environmental Impact Statement (FEIS) titled: *Disposal and Reuse of Naval Air Station Alameda and the Alameda Annex,* which was required before the base could be transferred to Alameda. Meanwhile, the City completed a Draft Environmental Impact Report (DEIR), titled: *Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex and Facility*. Both documents identified the *NAS Community Reuse Plan*, adopted in 1996 and amended in 1997, as the preferred alternative for the reuse of NAS Alameda. Although the FEIS and DEIR concluded that the preferred alternative would have a significant effect on the Historic District, both documents stated that appropriate mitigation measures would reduce the impacts to a less-than-significant level.

On June 6, 2000, the Navy and ARRA signed a Lease in Furtherance of Conveyance (LIFOC) for NAS Alameda. By the terms of this agreement, ARRA leased the base from the Navy and took charge of maintenance and subleasing buildings to tenants. From this point on, all leases were to be granted under the terms of the City's Interim Leasing Program, in anticipation of a future master-planned redevelopment.

In November 2001, the City of Alameda issued a DEIR for a proposed amendment to the City's *General Plan*, which would result in the creation of the new *Alameda Point Element*. In March 2002, the City issued a new Notice of Preparation (NOP) for a second DEIR for the revised *General Plan Amendment* (GPA). The second GPA DEIR was finalized in March 2003 and published. On April 28, 2003, the GPA was considered for adoption by the City of Alameda Planning Commission and adopted by the Alameda City Council on May 20, 2003.

[4] Steven D. Mikesell, JRP Historical Consulting Services, *Guide to Preserving the Character of Naval Air Station Alameda Historical District* (Davis, CA: April 1997), p. 2.
[5] "Memorandum of Agreement Among the United States Navy, the Advisory Council on Historic Preservation and the California State Historic Preservation Officer Regarding the Layaway, Caretaker Maintenance, Leasing, and Disposal of the Historic Properties on the Former Naval Air Station, Alameda, California," on file with the City of Alameda, p. 2.

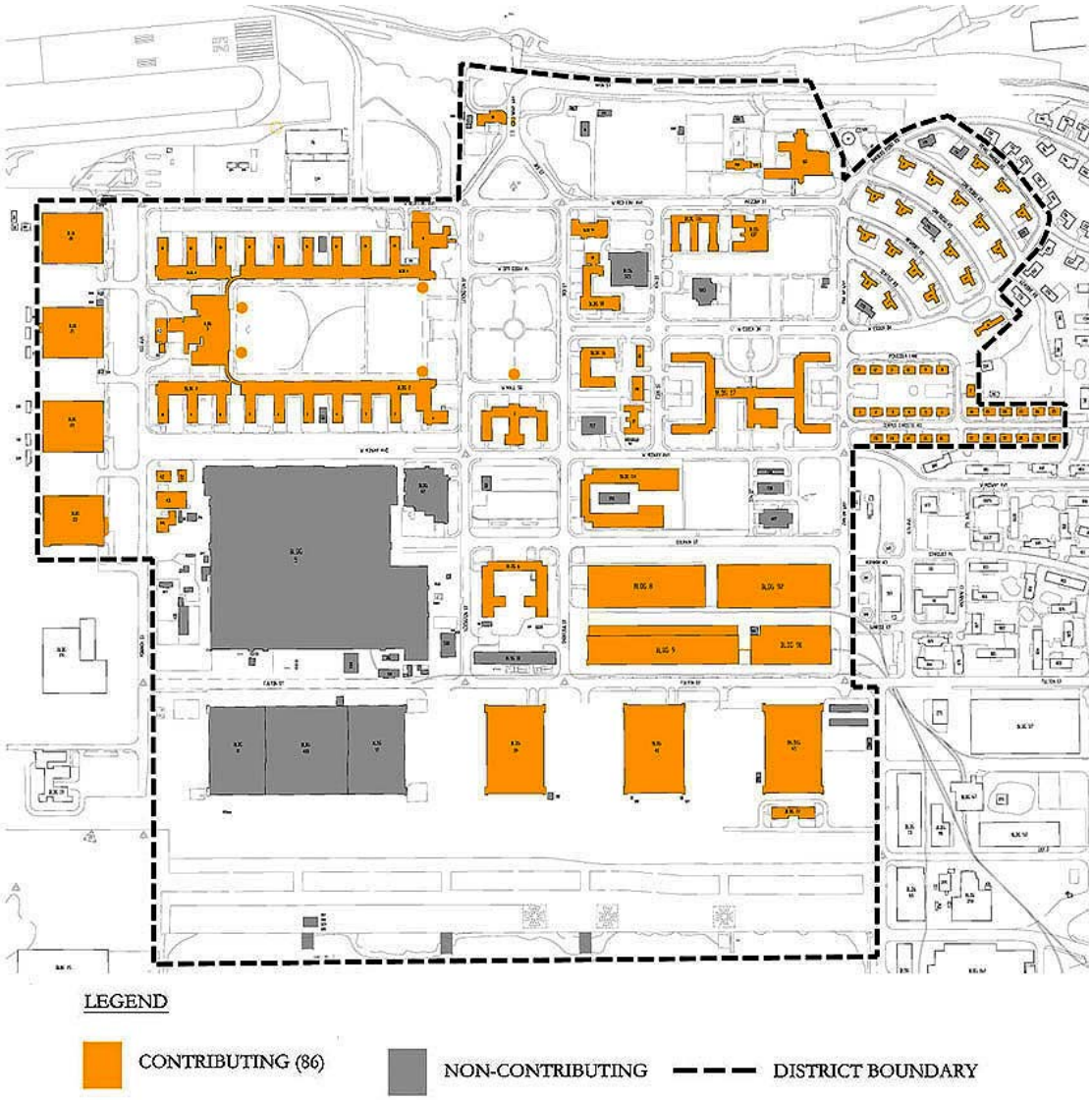

Figure 2. NAS Alameda Historic District Boundaries

IV. HISTORIC CONTEXT

Native American Period
Prior to European contact, the former marshlands on the western end of Alameda Island were occupied by a Penutian-speaking tribelet belonging to the larger Ohlone civilization. Although called the *Costeños* or "coast dwellers" by the Spanish, today their Native American descendents prefer the term Ohlone. Similar to many coastal California aboriginal groups, the Ohlone survived by fishing, hunting and gathering. Favored foods included fish, shellfish, waterfowl, acorns, roots, nuts, berries and other foods readily available in the marshlands, streams and foothills of the pre-contact San Francisco Bay Area. Based on the oral traditions of the tribe and data gathered by archaeologists from several large shellmounds on the margins of San Francisco Bay, it is likely that the ancestors of the Ohlone first inhabited the land surrounding San Francisco Bay between 5000 and 2000 BC. Ohlone occupation of the Bay Area appears to have been continuous until the beginning of the historic era, circa 1700 AD. After the arrival of Spanish missionaries and soldiers during the last quarter of the eighteenth century, the traditional lifestyle of the Ohlone gradually gave way to the influence of the Mission System and accompanying demographic changes brought on by disease and declining birthrates.[6]

Historically marshland and tidal flats, the site of NAS Alameda was utilized by the Ohlone as a rich larder where men would catch fish, hunt waterfowl and gather shellfish. Due to the fact that most of the land was at least partially submerged, it is unlikely that any permanent settlements were located within the boundaries of the former air station. However, permanent Ohlone settlements were not far away. Until it was quarried to provide surfacing for runways at the San Francisco Bay Airdrome, a prehistoric midden or refuse heap called Sather Mound was located approximately two miles southeast of NAS Alameda. Consisting of huge mounds of discarded shells, the middens were excavated in 1900 by an amateur archaeologist known as Captain Clark, who found them to contain flaked stone tools and burials. In addition to Sather Mound, five other known Ohlone sites have been identified in what is now the City of Alameda.[7]

European Contact: Spanish and Mexican Periods
The first permanent European settlements in the San Francisco Bay Area were established during the last quarter of the eighteenth century with the founding of Misión San Francisco de Asís and the Presidio of San Francisco in 1776. Two decades later, Misión San José was established by the Franciscans in what is now Fremont. During the ensuing decades, the Ohlone were rapidly dispossessed of their livelihoods, lands and freedom after being moved to the missions, where they were converted to Catholicism and taught European ways. Many died from exogenous diseases and others were killed when they attempted to escape and to return to their former way of life. Meanwhile, the Spanish and later Mexican governors of Alta California were granting vast tracts of land to retired Spanish soldiers and Mexican settlers. In 1820, Governor Don Pablo Vicente de Sola, the last Royal Spanish governor of Alta California, granted Rancho San Antonio to Sergeant Luís María Peralta. The 44,800-acre ranch included all of what is now Alameda and much of Oakland. In 1842, Peralta divided Rancho San Antonio among his sons. Antonio María Peralta, his third son, received 15,206 acres comprising the entire Alameda Peninsula, known then as Bolsa de Encinal.[8]

Early American Period
On February 2, 1848, the United States and Mexico signed the Treaty of Guadalupé-Hidalgo. Drawn up at the conclusion of the Mexican-American War, the treaty ceded much of northern Mexico to the United States. In exchange, the United States paid Mexico fifteen million dollars, assumed responsibility for three million dollars in claims against Mexico by American citizens and relieved Mexico of its monetary debt to the United States. Long before the ink dried on this document, American and European immigrants had been streaming into

[6] Busby et al., *Archaeological Survey and Site Evaluation: Disposal and Reuse, Department of Defense Family Housing, Novato, Marin County, California* (1995).
[7] Information on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.
[8] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 5.

California. In 1850, the year California became a state, William W. Chipman and Gideon Aughinbaugh purchased the section of Rancho San Antonio called Bolsa de Encinal from Antonio María Peralta. Bolsa de Encinal, which roughly translated means "pocket of oaks," was a tract of 1,960 acres comprising the majority of what is now the City of Alameda. The future site of NAS Alameda was part of this tract, although as partially submerged tidal flats and marshland, the land had little value.[9]

In 1853, the State Legislature created Alameda County out of parts of Contra Costa and Santa Clara Counties. Responding to a huge influx of American and foreign immigrants into the San Francisco Bay Area during the Gold Rush, Chipman and Aughinbaugh sold off sections of Bolsa de Encinal to speculators and real estate developers, who in turn subdivided the lands into farmsteads and residential lots. In 1854, the communities of Alameda and Encinal were incorporated, although neither was ultimately ratified by local election. However, due to poor access and lack of infrastructure, people did not flock to either settlement. Consequently, the peninsula remained sparsely populated throughout the 1850s and 1860s. On the other hand, the level terrain, rich soils and benevolent climate made Alameda ideal for pasture and horticulture. In addition, the presence of vast stands of native oaks made Alameda a popular location for commercial wood-cutting and charcoal manufacturing operations.[10]

Railroads Arrive at Alameda Point

In 1864, Alameda became infinitely more accessible to the wider world with the completion of the first leg of Alfred. A. Cohen's San Francisco & Oakland Railroad. The original alignment extended from what is now Versailles Avenue in eastern Alameda to Alameda Point, at the southwestern tip of the peninsula. The railroad was soon extended into Oakland via a bridge across San Leandro Bay and eventually on to Hayward. As the closest dry ground to San Francisco in Alameda, Alameda Point was selected by Cohen as the ideal location for railroad shops and a ferry wharf. From Alameda Point, ferries would connect rail passengers to San Francisco. Called "Cohen's Wharf," Alameda Point attracted a hotel, housing and several industries. Hoping to profit from land sales around his wharf, Cohen laid out a town in February 1868 and named it Woodstock.[11] Bounded by present-day Lincoln Avenue, Third Street, San Francisco Bay and Atlantic Avenue, Woodstock occupied a small section of what is now the southeastern corner of NAS Alameda.

Between 1868 and 1869, the community of Woodstock enjoyed a major building boom. In 1868, Pacific Coast Oil Works opened for business. Operated by Samuel Orr, the company was a predecessor to the Standard Oil Company.[12] For a brief time, Woodstock became the western terminus of the Transcontinental Railroad with the arrival of the first train from New York at Cohen's Wharf on September 6, 1869. Two months later, the Central Pacific Railroad, which had purchased the San Francisco & Oakland Railroad from Alfred Cohen in 1868, constructed a terminal at Prescott Street in West Oakland and removed the Transcontinental Railroad terminal from Cohen's Wharf.[13] Woodstock sustained another blow in 1873 when the Central Pacific re-routed the San Francisco & Oakland tracks from Alameda Point to Oakland via a new bridge spanning the Oakland Estuary just west of Webster Street. Cohen's Wharf was quickly abandoned and much of Woodstock reverted to agrarian uses.[14] The wharf and shops slowly deteriorated and collapsed but the remains of the facilities were encountered during excavations performed in 1938 during the construction of NAS Alameda.

In 1872, the City of Alameda incorporated, encompassing the entire peninsula historically known as Bolsa de Encincal, encompassing the communities of Encinal, Alameda and Woodstock **(Figure 3)**. According to the 1870 U.S. Census, the population of the new city remained very small, with only 1,557 residents. Nevertheless, major transportation projects undertaken during the 1870s set the stage for Alameda to eventually assume a

[9] *Ibid.*
[10] *Ibid.*, p. 6.
[11] *Ibid.*, p. 78.
[12] LSA Associates, *Alameda Point General Plan Amendment EIR* (Berkeley: 2002), p. 143.
[13] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 7.
[14] *Ibid.*, p. 71.

leading role in industrial, commercial and residential development in the decades to come. In 1874, the U.S. Army Corps of Engineers began dredging San Antonio Creek in anticipation of a proposed canal linking the Oakland Estuary with San Leandro Bay. As part of this work, the Corps built a "training wall" to guide the flow of San Antonio Creek.[15] This structure still exists north of NAS Alameda and is listed on the Alameda List of Monuments.

The completion of James G. Fair's South Pacific Coast Railroad from Santa Cruz to Alameda in 1878 restored railroad uses to Alameda Point. The right-of-way traversed the city from San Leandro Bay in the east, ran along Encinal and Central Avenues and terminated at a new pier near the decaying remains of Cohen's Wharf.[16] The new railroad began to attract industry back to Alameda Point. In 1879, Pacific Coast Oil Works built a kerosene refinery at Alameda Point near the southwest corner of what is now the intersection of Pacific Avenue and Main Street, within the present-day eastern boundary of NAS Alameda.

In search of improved access to San Francisco Bay, the South Pacific Coast Railroad eventually constructed a raised track bed along Main Street to the company's new Alameda Pier and Ferry Terminal at the northwestern corner of what is presently NAS Alameda. The construction of the causeway and ferry terminal in 1883 was the first major documented filling operation in the tidal marshland that would eventually become NAS Alameda. The causeway structure consisted of a double rock wall filled with mud and rubble, stretching over two miles into the Bay **(Figure 4)**. Constructed on top of the causeway were two tracks, a wagon road and a pedestrian walkway. Standing at the western end of the causeway was an 800'-long, 280'-wide pile trestle upon which was located a small railroad yard and massive terminal building. The terminal building measured 310' by 100' with two wings, each measuring 30' by 510' in plan. The Eastlake-style terminal featured electric lighting and was reported to have been "much handsomer an architectural sense than that of the Central Pacific (later Southern Pacific terminal in Oakland)."[17] The new South Pacific Coast pier (later called the Alameda Mole) was parallel to the Southern Pacific's Long Wharf on the other side of the Estuary in Oakland (later called the Oakland Mole). Both were much closer to San Francisco, cutting the length of the ferry trips between San Francisco and the East Bay by fifteen to twenty minutes. The new location also provided better access to deep water, solving the perennial silting problems that occured in the shallower waters off Alameda Point.

The old South Pacific Coast Railroad terminal in Alameda was destroyed by fire in 1902 and subsequently rebuilt by the Southern Pacific in 1903-04. After the 1906 Earthquake destroyed the San Leandro Bay trestle, the Southern Pacific bypassed the Alameda Pier and Ferry Terminal, reserving it exclusively for local service. In 1934, the terminal was retired following the completion of the San Francisco-Oakland Bay Bridge. No longer dependent on ferries, rail service on the bridge was provided by the Interurban Electric Railway (more popularly known as the Key System) on the lower deck until the 1960s. The Alameda Pier and Ferry Terminal were demolished when the Navy began constructing NAS Alameda in 1938.[18]

[15] *Ibid.*
[16] *Ibid.*
[17] Andy Fahrenwald, "A Short History of the Alameda Moles," *Newsletter of the Samuel Knight Chapter of the Society for Industrial Archaeology* (October 7, 1997), p. 7.
[18] Henry E. Bender and Thornton Waite, "Additional Depots Designed by D.J. Patterson," undated manuscript in the California State Railroad Museum.

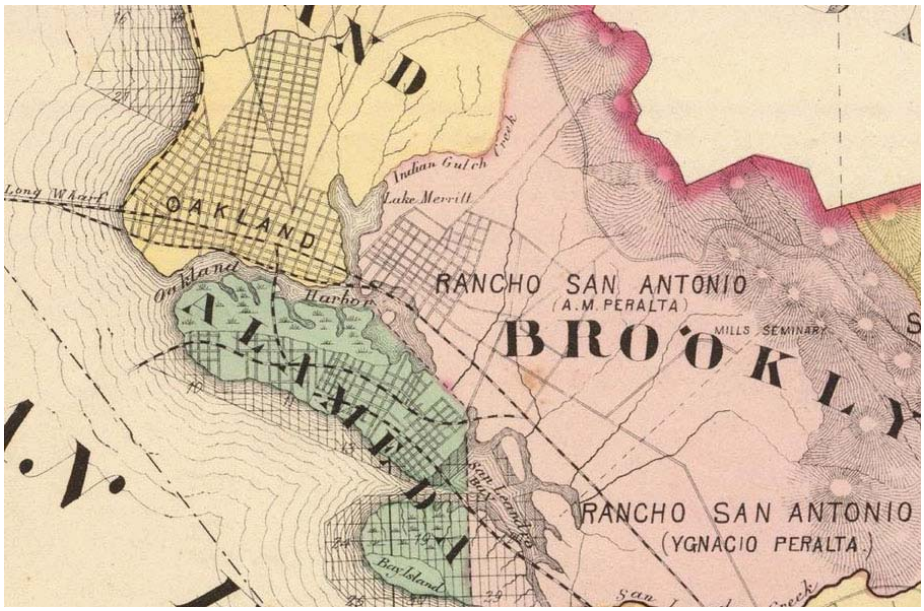

Figure 3. Map showing northern Alameda County in 1878.
Courtesy Bancroft Library, UC Berkeley

Figure 4. Detail of Oakland Tribune Map showing Alameda Point, ca. 1885.
Courtesy Online Archive of California

Industrial Development at Alameda Point

Reflecting its growing importance as an industrial and residential community, Alameda re-incorporated as a Charter City in 1884. Between 1870 and 1880, the population grew from a little over 1,500 to 5,708. By 1890 the population had nearly doubled to 11,165. Residential development in the form of rows of speculator-built cottages and larger residences on the "Gold Coast" replaced the farmsteads along the principal rail corridors. Meanwhile, Woodstock, at the western end of the city, attracted increasing amounts of heavy industry, including refineries, potteries and shipyards. In 1885, the Standard Oil Company of California purchased the Alameda Oil Works and Pacific Coast Oil Company and consolidated these operations in a sprawling complex located immediately west of South Gate in what is now NAS Alameda **(Figure 5)**. The refinery remained in business at Alameda Point until Standard Oil moved its operations to Point Richmond in 1903.[19] In 1886, Standard Oil Company was joined at Alameda Point by N. Clark & Sons, a large commercial pottery at the corner of Fourth Street and Pacific Avenue in Woodstock.[20]

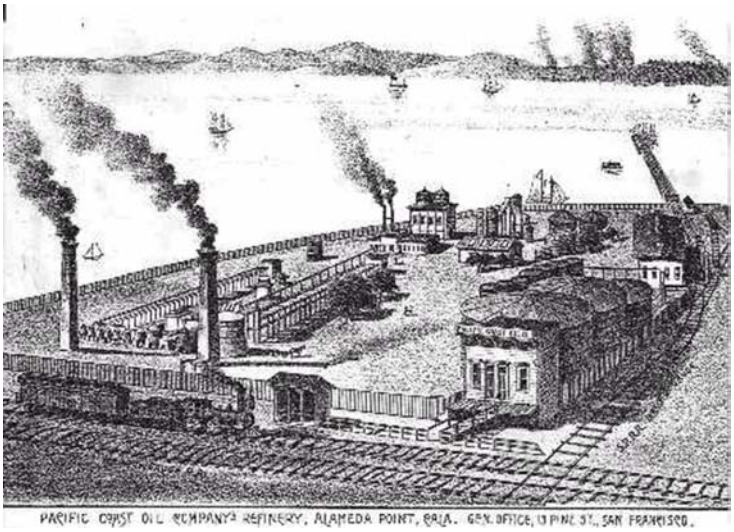

Figure 5. Pacific Coast Oil Refinery, Alameda Point, ca. 1890
Courtesy of Toxicspot.com

One of the most illustrious industries to relocate to Alameda Point was Pacific Coast Borax Company, constructed in 1893 by Francis "Twenty Mule Team" Smith, the famous Death Valley borax miner. Although far from his Death Valley mines, Smith chose Alameda Point for its convenient rail connections and access to San Francisco Bay. Smith constructed a huge wood-frame and concrete refinery complex on what is presently the site of the Engine Overhaul Shop (Building 360) and a wharf and coal storage warehouse on what is now the location of the Engine Test Cell complex (Building 14). When it was completed, Pacific Coast Borax Company was the largest borax refinery in the world and reportedly one of the first to make use of reinforced-concrete in the United States **(Figure 6)**.[21] The refinery was closed in 1930 after the exhaustion of the borax mines in Death Valley and the main four-story refinery building was subsequently dynamited. The Navy spared at least one building from the borax plant when they began grading and filling NAS Alameda in 1938. This building, Building 163, still exists as a small brick maintenance shed in the southeastern corner of the base.

[19] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 143.
[20] *Ibid.*, p. 72.
[21] *Ibid.*, p. 73.

Despite the industrial boom at Alameda Point, most of what is now NAS Alameda remained undeveloped throughout the nineteenth and early twentieth centuries. First, ongoing title disputes over the submerged tidal flats and marshes between the Central Pacific Railroad (the successor to the South Pacific Coast Railroad) and the heirs of Antonio Peralta made investment in these lands risky. Even more daunting was the high cost of dredging and filling several thousand acres of submerged tidal flats. The 1897 Sanborn Fire Insurance Map, the earliest detailed insurance map to cover the area, shows almost no development in the area within what are now the boundaries of NAS Alameda. Meanwhile, the section of Alameda formerly known as Woodstock consisted of the Standard Oil Company Refinery, the acific Coast Borax Company complexes and a handful of wood-frame workers' dwellings along Pacific Avenue **(See Sanborn Maps in Appendix A)**.

Figure 6. Pacific Coast Borax Refinery, n.d.
Courtesy of the Bancroft Library, UC Berkeley

The dawning of the twentieth century witnessed many developments that contributed toward the evolution of Alameda into an important Bay Area community. By 1900, Alameda had a population of 16,464, making it the fourth largest city in the Bay Area and the eighth largest city in California. The completion of the Tidal Canal in 1902, which linked the Oakland Estuary with San Leandro Bay, provided additional Bay frontage for shipyards and other water-dependent industries in Alameda and Oakland. Incidentally, the Tidal Canal severed most of Alameda from the mainland, transforming the bulk of the community into an island in San Francisco Bay. Now known as the "Island City," the citizens and business leaders of Alameda anticipated continued industrial and residential growth in the upcoming decades. The 1906 Earthquake and Fire was a boon to Alameda. Fleeing the devastation in San Francisco, an influx of earthquake refugees boosted Alameda's population to 23,383 by 1910. Rows of neat Craftsman bungalows infilled much of the remaining vacant land in the city, converting the still quasi-rural community into a dense streetcar suburb of San Francisco.[22]

U.S. Naval Air Power

The history of naval aviation begins well over three decades before the founding of NAS Alameda. The Wright Brothers' successful flight at Kitty Hawk, North Carolina on December 17, 1903, launched the aviation revolution. Within a decade of this event, the value of the airplane as a military tool had become increasingly apparent to the United States military. The Navy was the first to create an aviation wing when it established the Naval Aviation Department in 1911. The Army followed suit in 1912 when it set up the Aviation Section within the U.S. Signal Corps. In 1914, the Navy opened its first naval air station at Pensacola, Florida.[23]

For most of the nineteenth century, the Navy focused its attention on threats coming from Europe and as a result, most Naval installations were located on the Atlantic and Gulf Coasts. The Spanish-American War of 1898 and growing American concerns over Japanese power in Asia following the Japanese victory in the Russo-

[22] United States Census, 1910.
[23] Department of the Navy, Naval Historical Center, *Chronology of Significant Events in Naval Aviation, Part I* http://www.history.navy.mil/avh-1910/PART01.PDF.

Japanese War of 1904-05, caused the Navy to shift its focus from Europe to the Pacific. Before 1900, the only naval installation of any consequence in California was Mare Island Naval Shipyard in Vallejo. In 1907, the Navy established the first Pacific Fleet and in 1922, the United States Fleet was again reorganized, with a Battle Fleet in the Pacific and a Scouting Fleet in the Atlantic. Most of the Navy's large battleships were moved to the Pacific to counter the growing threat from Imperial Japan. In the early 1920s, the Navy began looking for ports to house the growing Pacific Fleet; eventually San Diego, California; Bremerton, Washington and Pearl Harbor, Hawaii were selected. In 1921, the new headquarters of the Eleventh Naval District were established in San Diego, where they remained until they were moved to Pearl Harbor in 1940.[24]

Despite having established the first military aviation wing in 1911, Navy brass initially downplayed the significance of aircraft in combat. It was only after Billy Mitchell demonstrated the ability of an airplane to sink a battleship off Hampton Roads, Virginia in 1922 that the Navy began to seriously investigate the use of aircraft in future naval engagements. Not long after Mitchell's feat, the Navy began constructing its first aircraft carriers from converted colliers and battle cruisers. The first purpose-built aircraft carrier constructed, the *USS Ranger*, was commissioned in 1934. New land bases were established for naval aircraft as well. The earliest naval air station at Pensacola was joined in the 1930s by installations at Anacostia (Washington, D.C.); Norfolk, Virginia; San Diego; Pearl Harbor and the Panama Canal Zone.[25]

Alameda Point Becomes Center of Aviation in the Bay Area
Pioneering Bay Area aviators often dealt with significant challenges including frequent fog and the scarcity of level vacant land for take off and landing. The western portion of Alameda, on the other hand, was soon identified as being an ideal location for civil aviation, mostly due to its central location, abundant level land and infrequent fog-filled days. The first recorded flight at Alameda Point took place on Columbus Day, 1911, when aviator Weldon Cooke took off from Alameda Point to entertain President William Taft and other spectators gathered on the north side of the Estuary in Oakland.[26]

With its deepwater access and protected location, Alameda Point's potential strategic value attracted the attention of top military brass during the early twentieth century. Alameda Point's first defense-related industry materialized in 1916 when Bethlehem Steel Shipbuilding Company built a shipyard on the Estuary immediately northeast of what is now NAS Alameda. Several drydocks and manufacturing buildings still survive on the site, presently the location of the Alameda Ferry Terminal. A year later, during the height of the First World War, local Alameda business leader John J. Mulvany convinced the Navy that Alameda Point would be an ideal location for a destroyer base.[27] Mulvany's lobbying efforts resulted in a fact-finding investigation by a committee headed by Admiral James Helm. The Helm Report recommended that a supply station be built at Alameda. The Helm Report went on to argue that Alameda's sheltered location on a major bay, coupled with the presence of local industry and infrastructure, made the site compare most favorably with the Navy base at Hampton Roads, Virginia. With only one other major West Coast naval installation at San Diego, the Helm Report concluded that a new base at Alameda would fit in well with the Navy's plans to establish a chain of facilities stretching along the Pacific Coast from San Diego to Seattle.[28]

[24] U.S. Army Corps of Engineers Baltimore District, *National Historic Context for Department of Defense Installations, 1790-1940, Vol. 1* (Baltimore: 1995), pp. 81-82.
[25] *Ibid.*
[26] *History of U.S. Naval Air Station Alameda, California,* manuscript at the Pacific Branch of the National Archives, San Bruno (January 9, 1945), p. 2.
[27] *Ibid.*, p. 1.
[28] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.

Charles Lindbergh's famous transatlantic flight in 1927 unleashed a second and more sustained interest in commercial aviation in the United States, with hundreds of small private and municipal airfields opening in the

Figure 7. View of Alameda Municipal Airport, 1934.
Courtesy National Archives Pacific Region, San Bruno

wake of his flight. Opening in 1927, Mills Field in South San Francisco was the first major airfield constructed in the Bay Area. This airfield was eventually purchased by San Francisco and evolved into San Francisco International Airport. Oakland followed suit with the Oakland Municipal Airport. Alameda did not lag far behind and in 1928 Alameda Municipal Airport opened for business on filled land near the Alameda Pier and Ferry Terminal on the northwestern corner of the future NAS Alameda **(Figure 7)**. In addition to a short runway, the facility consisted of an administration building and three hangars. Curtis Wright Aviation was the principal tenant until Pan American Airways leased the facility to house the company's famous China Clippers.[29]

San Francisco Bay Airdrome

After witnessing the success of Alameda Municipal Airport, the Board of Regents of the University of California began making plans to construct their own airport on 458 acres of marshland that the university had acquired in western Alameda. The rectangular tract was bounded by Atlantic Avenue to the south, Main Street to the west, the Bethlehem Steel Shipbuilding Company yard to the north and Webster Street to the east. The San Francisco Bay Airdrome was intended to serve as a major regional airport and construction began in 1930. After draining the site, two runways—one 3,400' in length and the other 1,700'—were graded and paved with crushed oyster shells looted from prehistoric Ohlone shell middens on Bay Farm Island. The airport offices and the terminal were at first housed in a single 53,000-square-foot hanger constructed at a cost of $150,000. The San Francisco Bay Airdrome was initially very successful and in the early 1930s, a 160' addition was added to the original hangar and construction began on a second hangar. By the mid-1930s, however, the facility began to lose most of its major airline tenants to Oakland Municipal Airport and Mills Field. For the rest of the 1930s the San Francisco Bay Airdrome was primarily used by private aircraft. In 1941, the Navy condemned seventy acres of the airdrome bordering Atlantic Avenue for a housing project and later ordered the

[29] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 3.

abandonment of the rest of "America's first downtown Airport" to eliminate possible interference with operations at NAS Alameda.[30] Today, the site of the former airdrome is occupied by Alameda College and the new "Alameda Pointe" subdivision.

Benton Field

The third major airfield built at Alameda Point got its start in 1930 when the Army acquired a 128-acre tract of partially submerged land located between Alameda Municipal Airport and the San Francisco Bay Airdrome

Figure 8. 1938 map showing location of airfields at Alameda Point.
Courtesy of Richard Rutter

(Figure 8). On April 3, 1931, Captain Leander Larson arrived at the newly named Benton Army Air Corps Field to take charge of building the first military airfield at Alameda Point. On May 8, 1931, Captain Larson received authority to spend $500,000 to undertake the following work: drilling a well, driving piles prior to filling, constructing a levee, dredging and building a 200,000-gallon water tower and railroad spur.[31] Although it does not seem to have reached completion, Benton Army Airfield was substantially underway on the northern portion of what is now NAS Alameda when the Navy began to show renewed interest in the site. In fact, the water tower was reused during the construction of NAS Alameda and only demolished within the past decade.

Navy Acquires Alameda Point

Perhaps spurred on by interagency rivalry, in 1935, the Navy met with Alameda officials to inquire about the possibility of acquiring 1,000 acres of land near Alameda Point for a naval installation. In June 1936, Congress passed Public Resolution Number 19 authorizing President Franklin D. Roosevelt to accept the 929.34-acre Alameda Municipal Airport from the City of Alameda. A year later, on October 7, 1936, the Navy officially acquired the 1,075-acre Benton Airfield (including submerged lands) from the Army, bringing the total area of the proposed naval base to a little more than 2,000 acres.[32]

[30] K.O. Eckland, "San Francisco Bay Airdrome" http://www.aerofiles.com/SFBA/SFBA.html.
[31] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 4.
[32] *Ibid.*, p. 4.

Plans Drawn

The original peacetime plans for NAS Alameda called for a 1,000-man, 200-aircraft facility costing $13,500,000. In 1937, Congress appropriated $15,000,000 to build the base, although the project was delayed for some time due to the need to allow Pan Am to vacate Alameda Municipal Airport and the Army to decommission Benton Airfield.[33] The new naval air station was designed by the Navy's Bureau of Yards & Docks, Department of Planning and Design. The Bureau was under the leadership of Navy Captain Ben Morell, who was in charge of developing naval installations throughout the nation during the prewar buildup of the late 1930s. The officers of the Department of Planning and Design were usually drawn from the Civil Engineers Corps, although the majority of the staff were civilian architects, engineers and planners under the direction of Capt. Thomas Trexel, Chief Architect in the Bureau's Washington, D.C. office.[34]

Dredging and Filling Commences

On February 10, 1938, Commander E.C. Seibert arrived in Alameda to assume his duties as Officer-in-Charge of Construction, administering the work from a small shack in the center of the base. Seibert awarded lump-sum contracts to twenty-five companies totaling $12,200,000, including contracts for demolition, dredging and construction. The first task was to demolish the majority of the extant structures within the base boundaries. Former occupants and owners were given an opportunity to remove existing improvements before contractors moved in to demolish the remaining buildings and remove submerged pilings and foundations. Next, the land was scarified in anticipation of it being filled and graded. The removal of submerged construction debris was especially critical, in order to ensure the even distribution of fill and eliminate obstructions to future construction.[35] A stone rip-rap seawall was built to exclude bay water from submerged and partially submerged areas. Dredging then commenced, with silt removed from the future sites of the ship channel, turning basin and seaplane lagoon. The dredged materials were then deposited on top of the marshlands and tidal flats within the seawall by means of large pressurized tubes. Millions of cubic yards of silt were spread on top of the mud, gradually creating "dry" land **(Figure 9)**.[36] Filling was held up briefly in 1938 when the dredging crew encountered an old trestle pier and ferry slip, remains of Cohen's Wharf. The debris, including pilings, iron railings, locomotive wheels, coupling links and a pile of sandstone cobbles, were all located on the site of what is now Pier 2.[37]

[33] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[34] John S. Garner, *World War II Temporary Military Buildings: A Brief History of the Architecture and Planning of Cantonments and Training Stations in the United States* (Washington , D.C.: U.S. Army Corps of Engineers, 1993), p. 17; LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[35] LSA Associates, *Alameda Point General Plan Amendment EIR* (Berkeley: 2002), p. 143.
[36] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[37] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 6.

Figure 9. Filling underway at NAS Alameda, 1940.
Courtesy of National Archives Pacific Region, San Bruno

Figure 10. Building 5 under construction, April 1940.
Courtesy of the National Archives Pacific Region, San Bruno

Construction Begins
After dredging and filling were completed, contractors installed underground utilities and constructed the following buildings in order: Building 90 (Garage), Building 1 (Administration Building), Building 2 (Bachelor Enlisted Men's Quarters), Building 3 (Mess Hall), Building 18 (Post Office/Theater), Building 6 (Public Works Garage and Firehouse), Building 5 (Assembly and Repair Shop), Building 10 (Power Plant), Building 8 (General Storehouse), Building 9 (Aircraft Storehouse), Building 13 (Paint and Oil Storage), Building 14 (Engine Test Stands), Buildings 11 and 12 (Seaplane Hangars), Buildings 20, 21, 22 and 23 (Land Plane Hangars), Building 19 (Operations Building), Building 15 (Boathouse), Building 17 (Bachelor Officers' Quarters) and ten Married Officers' Quarters. The first building completed, Building 90, was built in 1938 as a garage. This building has been moved several times and is currently located near the East Gate, where it was most recently used as the Civilian Employment Office. In November 1938, Building 1, the Administration Building, had been completed and was ready for occupation. By 1940 the main base buildings were well underway, including the massive hangars on the north side of Seaplane Lagoon **(Figure 10)**.[38]

War in Europe
By the end of 1939, construction of NAS Alameda was progressing steadily under the supervision of Commander Harold J. Brow, USN, the first commander of NAS Alameda. Meanwhile, anxiety was steadily growing over the aggression of Nazi Germany in Eastern and Central Europe and Imperial Japan in Asia. By the end of 1938, Germany had annexed the Sudetenland region of Czechoslovakia and all of Austria and Adolf Hitler was showing few signs of being satisfied. Meanwhile, Japan was embroiled in a bitter war to conquer China. On September 1, 1939, German forces invaded Poland and two days later Britain and France declared war on Germany. The Second World War had begun. Although there were many in the United States who advocated remaining neutral, most Americans realized the likelihood of American participation in the War was high.

Rearmament
Realizing that American involvement in the War was ultimately inevitable, President Franklin D. Roosevelt signed the Hepburn Base Program Act on April 4, 1939. The act authorized the construction of additional naval bases throughout the United States and its possessions. At this time, Navy enlistment stood at 110,000 personnel with an additional 18,000 men in the Marines. Despite having won a medal from the Association of Federal Architects at the Seventh Annual Architectural Exhibition as an "outstanding example of functional planning," NAS Alameda was clearly inadequate to accommodate additional personnel and equipment necessitated by pre-war buildup.[39] In 1940, Captain Frank R. McCrary, USN, was appointed Commanding Officer of NAS Alameda and in July of that year, the Navy decided to dramatically enlarge the base from 1,000 to 4,000 men. Congress approved an emergency appropriation of $17,000,000 and Drake & Piper Construction Company was contracted to carry out the work.[40]

[38] *Ibid.*, pp. 5-6.
[39] *Ibid.*, p. 5.
[40] *Ibid.*, p. 8.

Landscaping
In addition to expanding the physical plant of NAS Alameda, Navy architects and engineers were faced with problems involving chronic soil slippage and blowing sand. In 1939, the Navy entered into an agreement with the organizers of the then-underway Golden Gate International Exposition (GGIE) to transplant grass and shrubs from the fair site on nearby Treasure Island to NAS Alameda after the fair closed in September. The State Forestry Division also stepped in, contributing shrubs and trees to the landscaped mall between the Main Gate and the Administration Building. When the mall was complete, it was promptly nicknamed the "The Magic Carpet" due to the effect created by the tapestry of flower beds and other decorative plantings **(Figure 11)**.[41] To reduce the impacts of storm-induced erosion, the Navy also scuttled and sank several World War I-era destroyers south of Seaplane Lagoon to serve as a breakwater.

Figure 11. View from north of the central Mall at NAS Alameda, 1950.
Courtesy of the National Archives Pacific Region, San Bruno

[41] *Ibid*, p. 12.

NAS Alameda Opens
On November 1, 1940, NAS Alameda was formally commissioned. The brief ceremony was attended by Rear Admiral A.J. Hepburn, USN, Commandant of the Twelfth Naval District and members of his staff; officers attached to NAS Alameda; officials representing the cities of Alameda, Oakland and San Francisco; newspaper reporters; and approximately 390 sailors and marines. The flag-raising ceremony took place at the flagpole installed three days earlier in front of the Administration Building. The United States flag required for the ceremony had to be procured at the last minute from Mare Island Naval Shipyard in Vallejo.[42]

The opening of NAS Alameda was a boon for the nearby communities of Alameda, Oakland and San Francisco, which were all still suffering from the residual effects of the Depression. The February 27, 1941 special edition of the *Alameda Times-Star* projected that NAS Alameda would eventually employ close to 800 Alamedans. This figure ended up being much larger; by the end of the War, the Assembly & Repair Department alone would employ close to 9,000 civilians. The *Oakland Tribune* heralded the arrival of the first seven of the projected 200 planes that would be based at the station and described how they would be housed in the "largest hangars in the world." One of the articles discussed the trade schools built to train civilians and enlisted men in airplane mechanics, instrumentation, metal fabrication and drafting. In July 1941, demand for trained personnel led to the opening of several "Class A" trade schools at Alameda Point, including the Aviation Metalsmiths' School, the Aviation Machinists Mates' School and the Aviation Radiomen's School.[43]

Prior to the Japanese attacks on Pearl Harbor, most of the 400-odd civilian employees of NAS Alameda arrived at work in their own private automobiles, most of which were parked in a lot by the Main Gate. After Pearl Harbor, gasoline rationing and rubber shortages compelled employees to take public transportation to work, mostly on Key System buses running between downtown Alameda and the Main Gate. Workers from San Francisco and Oakland could also take water taxis from Jack London Square in Oakland to NAS Alameda.[44]

Pearl Harbor
Despite the hectic construction activity, NAS Alameda was nowhere near completion when carrier-based Japanese bombers and fighters attacked Pearl Harbor and other U.S. possessions on December 7, 1941. The attacks panicked West Coast residents and put the military on alert. Bombers were expected over San Francisco and other West Coast cities in the months that followed Pearl Harbor. The shelling of an oil refinery outside of Santa Barbara by a Japanese submarine in February 1942 only elevated fears. After Pearl Harbor, all personnel stationed at NAS Alameda were commanded to immediately report for duty. Hasty preparations were undertaken to protect the base, including the installation of anti-aircraft guns, fire watch stations, fire hydrants and earthworks around important buildings. All access roads were closed off and protected by security checkpoints with orders issued to shoot to kill any intruders.[45] Meanwhile, construction continued into 1942 and the base was completed as originally designed by the end of the year **(Figure 12)**.

NAS Alameda During Wartime
The primary mission of NAS Alameda during the Second World War was to supply the ships and stations of the Pacific Fleet and to "Keep 'em flying"; in other words, repair damaged aircraft. Most of this work was carried out by the Assembly & Repair Department in Building 5. By 1945, this department employed 9,000 people, many of them women. Building 5 underwent continual expansion to accommodate more aircraft, growing from 204,000 square feet in 1941 to over one million square feet by 1945. Eventually, Building 5 and its neighbors accommodated nine divisions: Aircraft Overhaul, Engine Overhaul, Accessories, Metal and

[42] *Ibid*., p. 9.
[43] *Ibid*., p. 10.
[44] *Ibid*., p. 12.
[45] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 4.

Machines, Radio-Radar, Engineering, Planning, Maintenance and Personnel. At its peak year in 1945, Assembly & Repair overhauled 842 aircraft and 2,027 engines.[46]

NAS Alameda also served as the primary supply base for Naval installations throughout the Pacific Theater. After the bombing of Pearl Harbor, Pacific Island bases were activated at Midway, Wake, Johnston and Palmyra Islands. Located on remote islands, these bases had to be supplied with nearly everything, including food, water, weapons, materiel and men. NAS Alameda also served several outlying installations in California, including Navy airfields at Crows Landing, Santa Rosa, Hollister, Monterey, Watsonville and Eureka, as well as a Coast Guard station in San Francisco. NAS Alameda was also the home port for several aircraft carriers.[47]

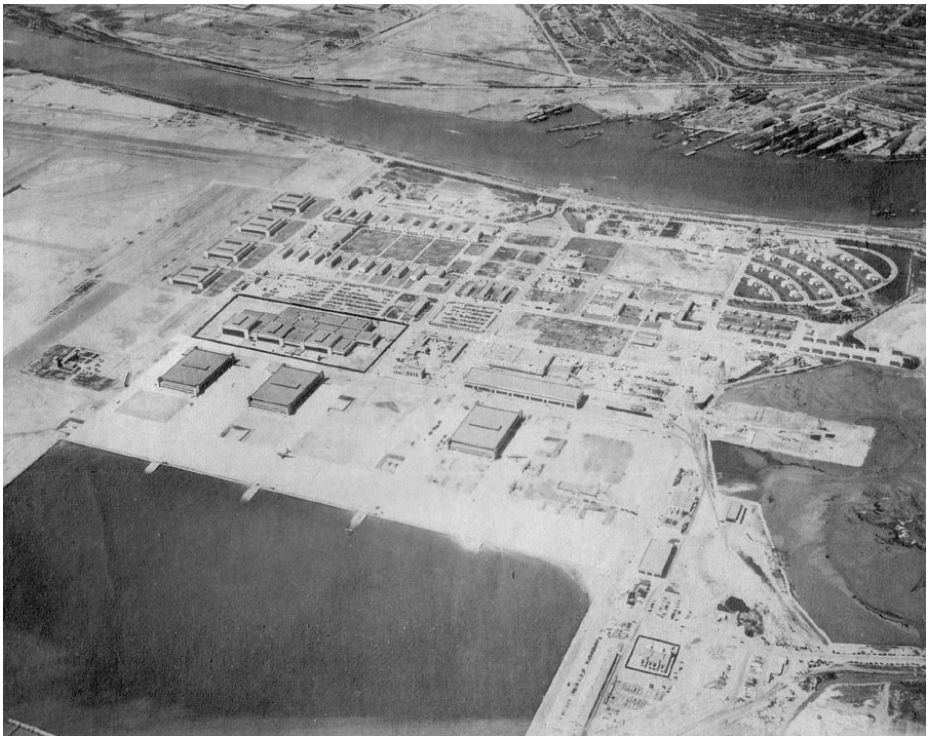

Figure 12. Aerial view of NAS Alameda, June 1942.
Courtesy of the National Archives Pacific Region, San Bruno

Labor Shortages
With all of the work going on at NAS Alameda, the demand for skilled labor grew to an insatiable level. During the Second World War, the city of Alameda became an unofficial Navy company town, more than doubling in population from 30,000 people in 1941 to over 85,000 people by 1945. Workers came from all over the United States to work at NAS Alameda and in other war industries ringing San Francisco Bay, especially shipyards and military installations. After the institution of the mandatory draft sent working-age men off to war, women became a critical part of the workforce at NAS Alameda. These women civilian workers, immortalized by the famous image of "Rosie the Riveter," joined forces with enlisted female military personnel called "WAVES"(Women Accepted for Voluntary Emergency Service).[48]

[46] *Ibid*, p. 5.
[47] *Ibid.*
[48] *Ibid.*, p. 5.

Wartime Events at NAS Alameda
One of the most important events to take place at NAS Alameda during the Second World War was the departure of the *USS Hornet* with Alameda native Lieutenant Colonel James Doolittle's force of eighteen B-25 bombers in April 1942. "Doolittle's Raiders," as they were called, bombed Tokyo and three other Japanese cities on April 18, 1942. American morale was at its lowest ebb, and the raids, although of little tactical benefit, proved to the American (and Japanese) public that the Japanese homeland was not invulnerable. Another noteworthy event took place in January 1944 when Army pilot 2nd Lieutenant Harry Pape of Sacramento bailed out of his P-39 seconds before it crashed within feet of Building 5. The pilot was uninjured, but several workers in Building 5 were wounded by flying debris.[49]

World War II Ends
By VJ Day in 1945, NAS Alameda barely resembled the small 500-man base that had existed before Pearl Harbor. Under the capable leadership of Captain Walter F. Boone, NAS Alameda had expanded over the course of the War to accommodate twenty-two squadrons of aircraft, twenty-three ships, 1,500 aircraft and 158 buildings. In order to accommodate all of this growth, in 1944, the Navy Bureau of Yards & Docks began to construct hundreds of temporary wood-frame and corrugated metal barracks, office buildings and machine shops throughout the base. Building 5, the home of the Assembly & Repair Department, was vastly enlarged to accommodate the large numbers of aircraft damaged in battle or those merely in need of overhaul. Large temporary wood-frame warehouses, such as Buildings 91 and 92, were erected in the Shops Area to house supplies awaiting shipment to the Pacific Theater. To accommodate the increasing size of aircraft carriers, the Navy awarded a million-dollar contract to Basalt Rock Company of Napa to build a mile-and-a-quarter-long breakwater south of the three carrier piers.[50]

Postwar Years: 1946-1950
The cessation of hostilities with Japan occurred on August 14, 1945 and demobilization took place with astounding speed. Charged with shipping men and materiel out to the Pacific Theater throughout the War, NAS Alameda was now responsible for bringing them home safely. Wartime personnel levels were cut in half by April 1946 and to one-third by June. By August 1946, NAS Alameda only had 187 officers and 1,792 enlisted personnel. Ships were decommissioned, planes mothballed and machinery and scrap melted down into ingots. Nevertheless, NAS Alameda would continue to play a role in the postwar Navy. Having invested over seven hundred million dollars in the construction and expansion of NAS Alameda, the Navy intended that the station would become one of three permanent stations of the Twelfth Naval District. In the immediate postwar period, NAS Alameda served as a supply depot for food, equipment and personnel sent to Occupied Japan. NAS Alameda was also home port to the Pacific Reserve Fleet and the aircraft carriers *Hancock*, *Ranger* and *Enterprise*. The giant Mars seaplanes used to ferry equipment and supplies to Pacific bases during the War were either mothballed or converted for use on rescue missions. By 1948, NAS Alameda was said to be "resting on its oars."[51]

Despite its reduced mission following the Second World War, aircraft overhaul work did not cease at NAS Alameda. After the War, a major amount of work went into converting the station from a facility catering to propeller-driven aircraft to one focused on jet propulsion. The Assembly & Repair Department (renamed Overhaul & Repair in 1948) continued to operate out of Building 5, which was radically altered and enlarged to accommodate jet aircraft and the 5,400 civilian workers who worked on them.[52] New engine test cells and other

[49] *Ibid.*
[50] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 5.
[51] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 7.
[52] *Ibid.,* p. 8.

new structures were built in the southeastern part of the station and many World War II-era temporary buildings were demolished.

Korean War to Vietnam
On June 25, 1950, Chinese and Soviet-backed North Korean troops invaded South Korea, launching the Korean War. On June 27, President Harry Truman ordered U.S. air and sea forces to give the Korean government troops cover, and on June 30, he authorized American ground troops to take part in the fighting. On July 3, 1950, NAS Alameda-based Carrier Division 3 became the first to launch air strikes against North Korean troops. Marines stationed at NAS Alameda were also some of the first American troops to see combat on the Korean Peninsula. Given its new mission in Asia, the Navy embarked on a major expansion of NAS Alameda. An additional 1,000 civilian workers were hired; reservists were called up; ships re-commissioned; aircraft de-mothballed; and the two runways were lengthened from 5,200' to 7,200'. In total, forty-six million dollars were expended on improvements to NAS Alameda. After the Korean War ended on July 27, 1953, NAS Alameda experienced a slight slowdown in operations, although nothing equivalent to what happened after the conclusion of the Second World War. The Cold War kept the U.S. military on its toes and NAS Alameda remained active.[53]

By 1958, NAS Alameda had a station population of 13,200, of which 4,800 were military personnel and 8,400 civilian workers. The base itself was comprised of 2,679 acres of land: 1,607 acres of dry land and 1,072 acres of submerged land. There were approximately 283 buildings and over thirty miles of roads. During this period, NAS Alameda was home port to the largest aircraft carrier in the world, the *USS Ranger*, one of the newest generation of Forrestal-class carriers, which were 1,000' long and weighed 76,000 tons.[54] By 1962, NAS Alameda had three 8,000' runways, four large aircraft carriers—*USS Hancock*, *Ranger*, *Coral Sea* and *Midway*—three seaplane ramps, 1,920,000 square feet of shop area, 2,858,000 square feet of storage area and 280 buildings. The total size of the base in 1962 was 2,720 acres, including 1,612 acres of dry land and 1,108 acres of submerged land.[55]

In 1960, the last seaplane squadron was transferred from NAS Alameda to NAS Whidbey Island, marking the end of an era. In July 1961, NAS Lemoore opened in the San Joaquin Valley and most of the carrier-based jet squadrons moved to the new station or to NAS Miramar, near San Diego. This was done to reduce the congestion and noise of jet training in the increasingly urban Bay Area.[56]

In September 1960, a mission of another kind came to NAS Alameda when the Oakland Raiders, a newly formed American Football League team, made the station their practice grounds. Coached by former Naval Academy head coach Eddie Erdalatz, the scrappy Raiders attracted the attention of naval personnel and civilian workers on their lunch breaks.[57]

Vietnam
In 1966, NAS Alameda again became homeport to the world's largest aircraft carrier, this time the *USS Enterprise*, which was the first nuclear-powered aircraft carrier. Events in Southeast Asia kept the ship and its personnel away from NAS Alameda for months at a time during the 1960s. As with the World War II and the Korean War, Alameda was significantly involved with the Vietnam War. After Viet Cong troops attacked American and South Vietnamese troops in South Vietnam on February 7, 1965, aircraft from the Alameda-based carriers *USS Ranger*, *Hancock* and *Coral Sea* launched strikes against North Vietnamese positions in Dong Hoi. During the rest of the 1960s, half of the attack carriers involved in Vietnam were

[53] *Ibid.*, p. 9.
[54] *NAS Alameda Base Directory* (Alameda: 1958), p. 12.
[55] v, p. 8.
[56] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 14.
[57] *Ibid.*, p. 17.

home-ported at NAS Alameda. In 1967, the airfield at NAS Alameda was renamed "Nimitz Field" in honor of Admiral Chester W. Nimitz, the man credited with winning America's sea war with Japan. Also in 1967, the Overhaul & Repair Department of NAS Alameda ceased to exist, replaced with another similarly charged organization called the Naval Air Rework Facility, or "NARF" **(Figure 13)**. The Vietnam War continued for another six years until a cease-fire was signed on February 5, 1973, ushering in a period of peace, budget cuts and personnel reductions at NAS Alameda. By 1980, only two carriers were home-ported at NAS Alameda, *USS Coral Sea* and *Enterprise.*[58]

Post-Vietnam to BRAC

Faced with changing priorities and political sensibilities in the 1970s, the Navy introduced new programs emphasizing psychological and physical well-being and improved race relations, as well as several new recreational buildings. The demographic character of the workforce began to change as World War II-era workers retired, many to be replaced by ethnic minorities and women. Leaders of the environmental movement also began to place expectations on the Navy to improve its record of environmental responsibility at NAS Alameda. During the 1970s and 1980s, the Navy spent substantially more resources to mitigate hazards caused by spilled jet fuel and oil.

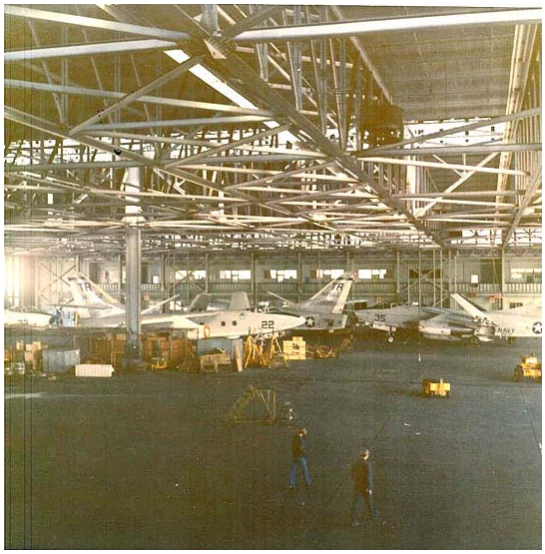

Figure 13. Interior of Hangar 20, 1960s.
Courtesy of Richard Rutter

Despite the Reagan-era military buildup of the 1980s, Secretary of Defense Caspar Weinberger suggested in 1985 that NAS Alameda be added to a list of twenty-two bases proposed for closure, partially due to declining productivity and morale in the NARF department (later renamed Naval Aviation Depot, Alameda, or NADEP). Nevertheless, productivity dramatically improved after the base made improvements to the station and gave pep talks to the employees, and as a result, NAS Alameda was taken off the list for closure.[59] On October 17, 1989, the San Francisco Bay Area was hit by the 7.1 Loma Prieta Earthquake. The earthquake heavily damaged runways, partially destroyed the control tower and disrupted utilities. Nevertheless, within days, NAS Alameda was back in service and providing assistance to earthquake victims throughout the Bay Area.

Base Realignment and Closure

The "Peace Dividend" resulting from the end of the Cold War put pressure on the branches of the military to cut costs and close redundant installations. In 1990, Defense Secretary Dick Cheney suggested closing all Navy facilities in the San Francisco area. After a brief respite during the First Persian Gulf War, the Base Realignment and Closure Commission (BRAC) began the work of determining which bases should be closed. NAS Alameda narrowly escaped the first cut in 1991. Many believed that Alameda's high level of productivity would cause the station to be spared, but on March 12, 1993, to the shock of base personnel and thousands of Alamedans who worked at the base, NAS Alameda was included in the next list of thirty-one bases designated for decommissioning.

[58] *Ibid.*, pp. 17-19.
[59] *Ibid.*, p. 21.

At the time that NAS Alameda was designated for closure, the station was comprised of 2,842 acres of land, including 1,527 acres of dry land and 1,315 acres of submerged land; 251 buildings; 195 structures; and two runways measuring 8,000' and 7,200' long. Total employment consisted of 2,861 military personnel and 4,025 civilians. Home-ported ships included two carriers, the *USS Abraham Lincoln* and *Carl Vinson*; one missile cruiser, the *USS Arkansas*; and one destroyer tender, the *USS Samuel Gompers*. In addition, NAS Alameda was home to four Naval Air Reserve squadrons and one Marine Air Group.[60] In 1997, NAS Alameda finally closed its gates, fifty-seven years after opening.

[60] *NAS Alameda Fact Sheet,* October 20, 1993.

V. DESCRIPTION OF NAS ALAMEDA HISTORIC DISTRICT

Boundaries
NAS Alameda Historic District encompasses an area of approximately 350 acres at the center of the former military base. The historic district is bounded by Main Street and Oakland Inner Harbor to the north, 1960s-era multi-family housing to the east, mixed-use industrial buildings and warehouses to the southeast, Seaplane Lagoon to the south, and Nimitz Field to the west **(Figure 2)**.

Figure 14. Main Gatehouse and Sentry House (Buildings 30 and 31), NAS Alameda, 2004.

Significance
Architectural Historian Sally Woodbridge, author of the 1992 *Historic Architectural Resources Inventory for the Naval Air Station, Alameda*, identified a potential historic district at the center of NAS Alameda that appeared to be eligible for National Register listing under Criteria A (Events) and C (Architecture), with a period of significance of 1938-1945. Under Criterion A, the district appears to be significant as an important component in the evolution of the Bay Area as America's "Arsenal of Democracy" during the Second World War. The district also appears to be eligible for listing under Criterion C as a military installation embodying the characteristics of "Total Base Design," as well as a rare example of a military installation designed in the Streamline Moderne style **(Figure 14)**. Military bases built during the Interwar Period (1919-38) and during the early years of the Second World War (1939-42), typically embody the characteristics of Total Base Design, defined as the careful integration of site planning, architectural program and landscape architecture. Influenced by municipal zoning ordinances adopted during the 1910s and 1920s, bases designed during this era usually display a pronounced segregation of uses for functional, aesthetic and safety reasons. Bases constructed according to the precepts of Total Base Design also often embody City Beautiful planning and design principles, particularly cross-axial patterns of circulation, large landscaped malls terminating at important visual monuments or vistas, and symmetrical disposition of buildings. Sally Woodbridge's *Historic Architectural Resources Inventory* identified eighty-five contributing resources and thirty-one non-contributing resources in the Historic District.[61]

Character-Defining Features

Site Plan
The original site plan for NAS Alameda is a logical arrangement composed around two primary cross axes centrally placed in a roughly square framework of roadways (**Figure 15**). Sprawling across over 350 acres of mostly level, filled land, the Historic District is bounded by streets and open water to the north and south, later multi-family construction to the east, industrial uses to the southeast and Nimitz Field to the west. The original

[61] Page & Turnbull has identified eighty-six contributors and fifty-five non-contributors within the boundaries of the NAS Alameda Historic District (Refer to Appendix E). Since Woodbridge's inventory, the number of contributors was revised to 87 (acknowledged in a letter from the Offfice of Historic Preservation dated Nov. 5, 1997) and one building (Building 101) was destroyed by fire, reducing the number of contributors to eighty-six.

award-winning design of NAS Alameda was executed by the Bureau of Yards & Docks, Department of Planning and Design, an agency that employed talented civilian planners, architects and engineers who were well-versed in the important planning trends of the time. One of the most obvious influences in the base's design is the City Beautiful Movement. Inspired by Daniel H. Burnham and Frederick Law Olmsted's design for the World's Columbian Exposition in Chicago in 1893, City Beautiful urban planning was characterized by symmetrical arrangements of buildings along landscaped axes terminated by important monuments or vistas, Beaux-Arts architectural vocabulary and unified landscape treatments. The City Beautiful Movement was reinterpreted in cities across the United States and its colonies, including Washington, D.C. (1901), Manila (1904), San Francisco (1905), Chicago (1909), Denver (1910) and others. Obsessed with resolving the chaotic conditions so characteristic of young and rapidly growing American cities, the City Beautiful Movement sought to appropriate the best elements of European Renaissance and Baroque planning traditions to imprint a uniquely American identity to our civic centers, educational campuses and federal institutions.

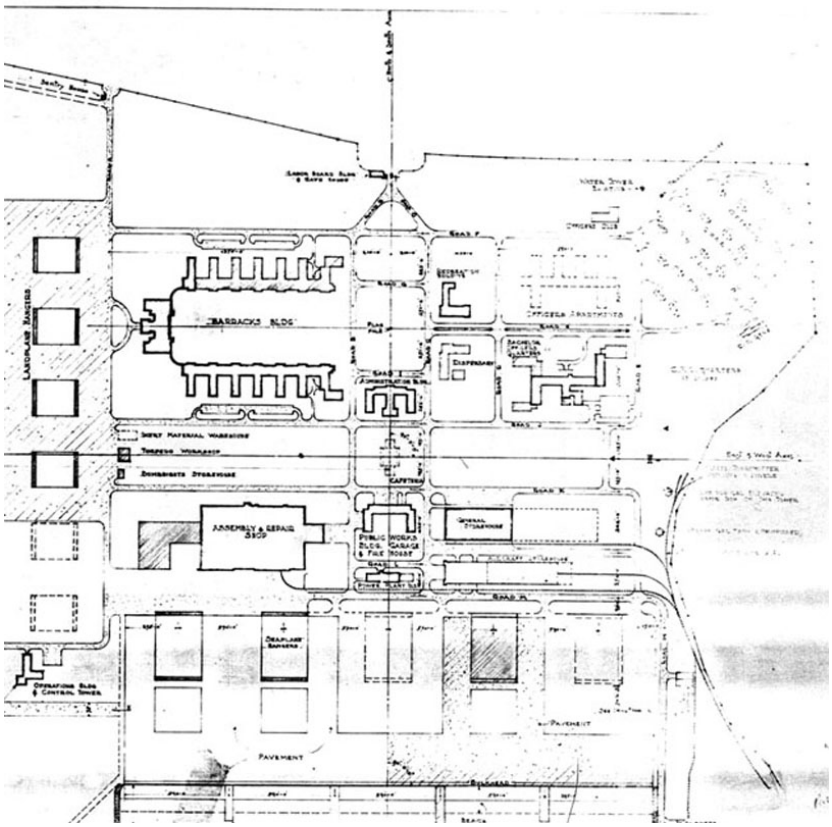

Figure 15. 1940 plan of NAS Alameda.
Courtesy of Department of the Navy, NAS Alameda Plan Room

Figure 16. Moffett Field, ca. 1940
Source: Moffett Field Historical Society

Between the First and Second World Wars, U.S. military leaders became increasingly committed to the orderly aesthetic of the City Beautiful Movement for base design. Mere aesthetics aside, the military's interest in City Beautiful planning principles was a culmination of a long history of logical and efficient base planning going back as far as the Roman *castrum*. U.S. military installations designed between the wars typically employed a strong axial plan (often centered around a landscaped mall), and a cohesive architectural vocabulary (usually referencing the local regional architectural tradition), which were set within a unified landscape. These bases follow what has been termed as "Total Base Design," meaning that architecture, site planning and landscape architecture are integrated, informing a whole, highly organized design.[62] Good examples of this system include March Airforce Base in Riverside; Hamilton Field in Novato; the Naval Training Center in San Diego; and NAS Sunnyvale (renamed Moffett Field) **(Figure 16)**. Unlike NAS Alameda, these four bases adhere to the popular Mission Revival or Spanish Colonial Revival architectural styles.[63] However, these bases share in common with NAS Alameda an expansive central mall. At Moffet Field, the mall serves as the heart of the base, connecting the main entry with the central administration buildings, ultimately terminating at the signature icon and *raison d'être* of the base: the dirigible hangar. In the case of NAS Alameda, the landscaped north-south axis terminates at the Seaplane Hangars and the Seaplane Lagoon, while the east-west axis terminates at the Landplane Hangars, and beyond that, the San Francisco skyline. This progression along the central axis gives hierarchy to the plan, leading from the entry point to the impressive buildings that most directly serve the base mission.

The Woodbridge inventory specifically identifies the central open spaces and the street system as character-defining features of the Historic District, and comments on its overall "continuity of style and a high degree of architectural integrity enhanced by the retention of landscaping and parklike open spaces."[64] The reference to the installation's manifestation of Total Base Design is also recognized in the JRP *Guidelines* as being analogous to Gunther Barth's "instant city" model, used by the author to describe the near instantaneous development of San Francisco and Denver during their respective Gold Rushes.[65] The overarching continuity of the Historic District is emphasized in the *Guidelines* as embodying the following characteristic:

> If there is one overriding character-defining element of the NAS Alameda Historic District, it is this uniformity of design features, elements, and materials. These buildings were designed as a group, an ensemble, and should, to the extent possible, be managed in the same manner.[66]

[62] U.S. Army Corp of Engineers, Sacramento District, *California Historic Military Buildings and Structures Inventory, Vol. III* (Sacramento: 2000), p. 6-21.
[63] These four bases are listed on the National Register of Historic Places as historic districts.
[64] Sally Woodbridge, *Historic Architectural Inventory for Naval Air Station* (Alameda, 1992), p.3.
[65] Steven Mikesell, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* (Prepared for Naval Facilities Engineering Command, San Bruno, CA, 1997), p. 1.
[66] *Ibid.*

Axes

As described above, the principal cross axes that help to define the character of NAS Alameda are clearly indicated in the original plans prepared by the Bureau of Yards & Docks. The main north-south axis is a large landscaped mall historically known as the "Magic Carpet," beginning at the Main Gatehouse (Building 30) and continuing south to the Administration Building (Building 1). Landscaped areas originally carried the main axis south to Building 6 and the Seaplane Lagoon beyond. As originally designed, the east-west axis separated the Administrative and Residential sub-areas from the Shops and Hangars sub-areas. However, after the bombing of Pearl Harbor, the formerly open east-west axis was sacrificed to wartime contingencies and filled with additions to the Assembly & Repair Shop (Building 5), and new training, maintenance and storage structures (including Buildings 114, 101, 73A and 73B). The primary north-south axis was retained along with a secondary east-west mall framed by the Bachelor's Enlisted Quarters Buildings and the General Service Building (Buildings 2, 3 and 4). This secondary mall and the landscaped boulevard along Road H (currently W. Essex Road), which connects to the Residential Area of Officer's Quarters, became the predominant east-west axis by the end of World War II **(Figures 17-19)**.

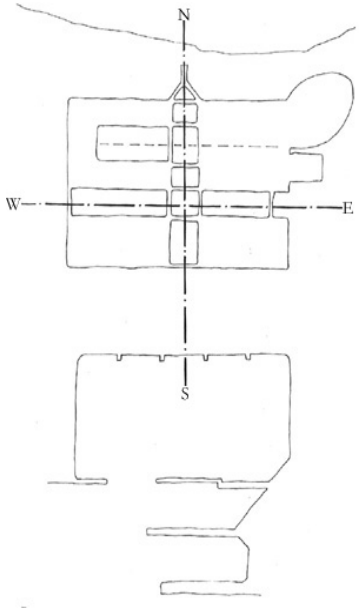

Figure 17. Original plan axes

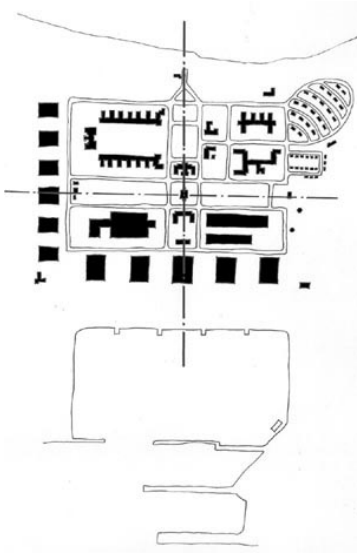

Figure 18. Master plan, ca. 1940

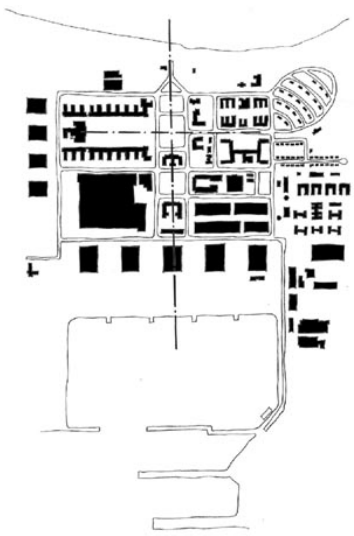

Figure 19. Built plan, ca. 1945

In addition to providing important vistas of significant monuments and landscapes beyond the base, the principal axes also serve as the primary circulation routes. Individual circulation elements, such as prominent entrance pavilions, arcaded passageways, paths and stairs, tend to relate to the principal axes. Some circulation elements, such as the covered pedestrian passageways connecting Buildings 2, 3, and 4, frame views of the Bay and downtown San Francisco in the distance. The axes are defined by rows of low-slung buildings, which serve not so much as continuous edges but as punctuation within a park-like setting. The most significant landscape treatments are encountered along the north-south and east-west malls, with some extending into other sub-areas like tendrils of green open space, especially a landscaped boulevard that originally existed along W. Essex Street. The malls are punctuated periodically by important structures and monuments, such as the main

flagpole at the southern end of the north-south mall, directly across from the main entrance to the Administration Building.

View Corridors
As discussed above, the two principal malls serve as important view corridors, providing vistas or glimpses of primary features of the base plan **(Figure 20)**. The corridors focus attention on symbolically and architecturally significant structures. The main north-south mall begins north at the Gatehouse (Building 30) and terminates at the Administration Building (Building 1) at the south. Visitors standing at any point along the mall enjoy dramatic views of both buildings at either end of the mall. The buildings lining the mall defer to the Administration Building, although their design is compatible. Landscaping, in particular mature Monterey Cypress trees, also direct the attention of the visitor to the Administration Building with the flagpole in front of it. In this way, planning, architecture and landscape architecture work in concert to direct strangers to the central nerve center of the base, as well as promote public interaction with the elements that embody the highest degree of architectural interest.

Figure 20. View corridors

Although not a landscape in the traditional sense, significant view corridors are afforded along and in-between the rows of massive Seaplane Hangars at the southern edge, and the somewhat smaller Landplane Hangars along the western edge of the district. The repetition of identical, 60-foot-tall volumes creates strong streetscapes when viewed along Monarch Street and West Tower Avenue. These two vistas, as well as the views between the hangar buildings, are mentioned in the JRP *Guidelines* as some of the most important character-defining elements of NAS Alameda. Taken in conjunction with glimpses of downtown San Francisco in the distance, these views are some of the most impressive on the base.

Sub-Areas
Five sub-areas within NAS Alameda were identified in the JRP *Guidelines* as possessing distinctive characteristics. Reflecting the segregation of usage that is so characteristic of the base, these sub-areas are coterminous with function: the Administrative Core, the Shops Area, the Residential Area, and the Seaplane and Landplane Hangars Areas. (**Figure 21**). The purposeful arrangement of functions, or zoning as it came to be known in the early 20th century, is indicative of the Total Base Design practice and the City Beautiful Movement, from which it derived in part. The functional segregation of different, mutually incompatible

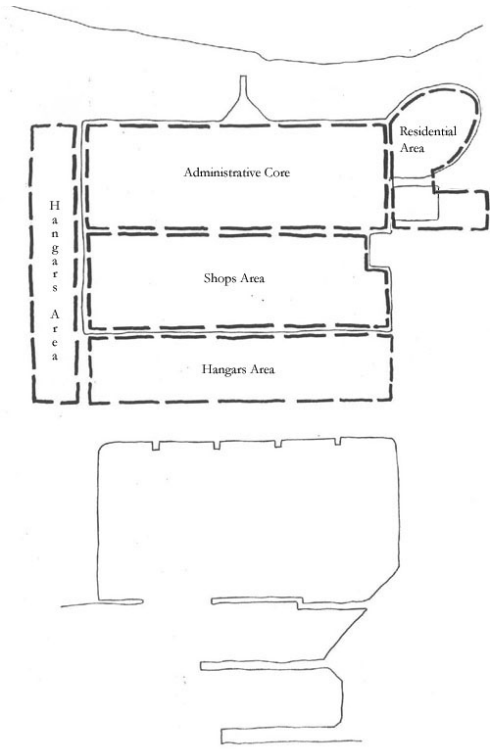

Figure 21. District Sub-Areas

uses fulfills the practical purpose of grouping similar activities together in one area, making work more efficient. It was also safer, in important consideration in an area containing large stores of explosive materials. Finally, the practice of zoning allowed for a better opportunity to shape the aesthetic character of the base as a coherent entity.

To that end, each sub-area of NAS Alameda is unique and distinguished from other sub-areas by different building massing, architectural treatment and landscaping. As the center of command and ceremonial nucleus of the base, the Administrative Core is located at the heart of the base. The most architecturally significant buildings are located here, including Buildings 1, 2, 3, 4, 16, 17 and 18. These buildings are symmetrically arranged on either side of broad, intersecting landscaped malls. The buildings are consistently two to three stories in height and have stepped massing, often consisting of a central pavilion flanked by two one-story wings **(Figure 22)**.

The Residential Area is located just east of the Administrative Core. Nestled into a landscaped area of lawns and mature street trees in the northeast corner of the base, the Residential Area is segregated from through-traffic by a network of curvilinear streets that do not connect to major through-streets. The Residential Area is comprised of two separate clusters of family housing: relatively large, hip-roofed, single-family houses intended for officers; and a secondary cluster of less-elaborate, small, flat-roofed bungalows intended for non-commissioned officers. Although quite different, reflecting discrepancies in rank, the scale and detailing of the architecture in the Residential Area is decidedly smaller and more "domestic" in nature than any of the other four sub-areas **(Figure 23)**.

Figure 22. Building 16, Administrative Core

The Shops Area is sandwiched between the Administrative Core to the north, the Seaplane Hangars Area to the south, and the Landplane Hangars to the west. The Shops Area contains the largest and the most utilitarian buildings of any of the five sub-areas. Although quite large, the buildings of the Shops Area are effectively screened from view from the Administrative and Residential Areas by landscaping and relatively horizontal massing, the notable exception being Building 5, which looms over much of the central portion of the Historic District. The Shops Area is also the most heterogeneous of the five sub-areas, running the gamut from utilitarian wood-frame, "semi-permanent" warehouses like Buildings 91, 92 and 114, to more elaborate Streamline Moderne structures, such as Building 6.

Figure 23. "Big White," Officers' Housing in the Residential Area

Similar to the structures of the Shops Area, the buildings of the two Hangars Areas are designed in a utilitarian mode. However, the hangars are substantially different from the Shops Area by virtue of their cohesive design (apparently by Detroit architect Albert Kahn) and repetitive arrangement in rows along the south and west sides of the Historic District. Visible from much of the inner Bay Area, the massive hangars visually summarize in an iconic fashion the mission of NAS Alameda. Built in proximity to the Seaplane Lagoon and Nimitz Airfield, the hangars define the edges of the runways and taxiways that dominate much of the base. The only building in the Hangars Areas that departs from the overall utilitarian character of the sub-area is Building 77, the Passenger Terminal. Built somewhat later than the hangars, Building 77 conforms to the Streamline Moderne aesthetic of the Administrative Core. Although not landscape features in the traditional sense, the tarmac taxiways alongside the bay side of both rows of hangars create important open spaces that serve as transitional zones between the Historic District, Nimitz Field and the Seaplane Lagoon **(Figure 24)**.

Architecture: Streamline Moderne

NAS Alameda is a rare example of a military base with significant portions designed in the Streamline Moderne style. Derived in part from European High Modernism and the contemporary work of American industrial designers, the Streamline Moderne style began to develop in the United States during the late 1920s and early 1930s, with the now-famous PSFS Building in Philadelphia (1929) and the McGraw-Hill Building in New York (1931). The basis of the style can be traced in large part back to American transportation designers like Raymond Loewy, who tested their designs in wind-tunnels and fluid tanks to produce aerodynamically advanced designs for train engines, automobiles, airplanes and ships that enhanced forward motion by reducing wind or water resistance. Industrial designers discovered that refrigerators, toasters, and pencil boxes with the same curves and wind lines appealed to consumers over earlier boxy models. Shoppers were even willing to pay more, maybe because these "modernistic" gadgets seemed futuristic in the same way the era's science-fiction films and comic books painted a future technologically freed of all problems. Buildings designed in the Streamline Moderne style referenced this fascination with speed and efficiency by exhibiting curved corners, ship rails, and porthole windows. The buildings also featured modern-age materials such as chrome-plated steel interior trim, magnesite flooring and ribbon windows

Figure 24. Seaplane Hangars north of Seaplane Lagoon, 2004

Figure 25. Building 18 (Theater), 2004

featuring aluminum sash or glass-block. More accessible to the public than the rarefied European Modernism of the 1920s, the Streamline Moderne style conveyed notions of speed, efficiency, cleanliness and a progressive vision of the future.

In the years leading up to the Second World War, the Navy began to build new bases under the provisions of the Hepburn Act. A handful of these new bases departed from the historicist and regional vocabularies typically used by the Navy and embraced a more modern design aesthetic influenced by the contemporary Art Deco and Streamline Moderne movements. Alternately called "Stripped" or "Starved Classicism," or "Works Progress Administration Moderne," the modern styling developed by the Navy's Bureau of Yards & Docks was generally more conservative than civilian works of the same era. Due in part to the fact that the military relied on standardized plans, Navy buildings constructed during the late 1930s continued to retain strict axial plans and symmetrical facades dominated by colonnades or porticos. However, instead of using traditional Neoclassical architectural detailing, the "new" modern buildings incorporated simple, stylized decorative details and massing typical of the Streamline Moderne style. Characteristics of the style evident at NAS Alameda include: smooth stucco walls, curved parapets, incised "speed lines," stacked window elements, glass-block or horizontal ribbon windows, and stylized sculpture depicting traditional military motifs such as eagles, or in the case of the Navy, anchors or figures of Pegasus **(Figures 25 & 26)**.

Figure 26. "Pegasus," Building 4, 2004

In California, the largest base designed wholly in the Streamline Moderne style is NAS Alameda. While other bases feature concentrated areas designed in the style, such as McClellan Air Force Base near Sacramento, or feature individual buildings, such as the Naval and Marine Corps Reserve Center in Los Angeles and the Naval Reserve Center in Santa Barbara, none retain such a large concentration of buildings designed in the Streamline Moderne style.[67] While NAS Alameda features World War II-era temporary and semi-permanent buildings that are not compatible with the original base design, the majority of the Historic District contains buildings constructed between 1938 and 1941 in the Streamline Moderne style.

Landscape

The most important landscaped areas at NAS Alameda are the two intersecting malls at the center of the Administrative Core **(Figure 27)**. Landscape materials consist of broad grassy areas segmented into smaller sections by paved paths. Decorative borders of box hedges, Monterey pine, Monterey cypress, red

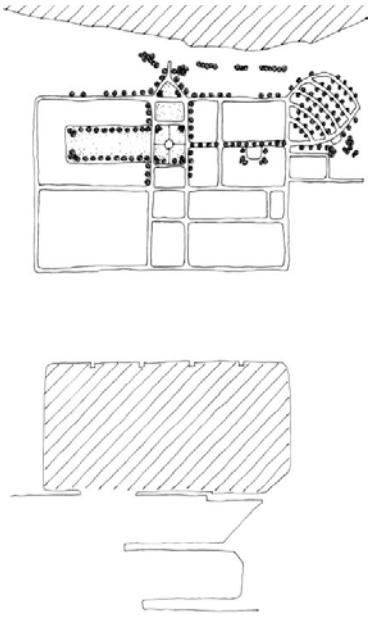

Figure 27. Landscape features

[67] U.S Army Corp of Engineers, Sacramento District, *California Historic Military Buildings and Structures Inventory., Vol. III* (Sacramento: 2000), pp. 7-44-7-45.

gum eucalyptus, bottle brush and other trees and shrubs typical of California, line important paths, borders or significant spaces, such as the area surrounding the flagpole in front of Building 1. Other significant areas of landscaping include the lawns and trees in the Residential Area, a large expanse of grass and athletic fields east of the Main Gate, three landscaped courtyards on three sides of Building 17 and a now-paved median in the center of Essex Drive. Some of the mature landscaping appears to have been either salvaged from the 1939 Golden Gate International Exposition or donated by the California Division of Forestry around the same time. Historic photographs taken of the base in the 1940s and 1950s indicate that the original landscaping in the Administrative Core was more formal, with ornamental parterres and shrub borders giving the north-south mall its historic nickname the "Magic Carpet." These areas are now either paved or covered in grass.

Contributing Buildings

As the nerve center of the former base, and the area most often encountered by visitors, the Administrative Core is home to the most architecturally significant buildings at NAS Alameda. Many of the most important contributors to the Historic District are located here and most are designed in the Streamline Moderne style. The Administrative Core also contains a handful of World War II-era "semi-permanent" buildings constructed during wartime, such as Buildings 94 (Chapel), 130 (Medical Lab), 135 (Community Facilities) and 137 (Recreation Storage Facility). Contributors in the Administrative Core include Buildings 1 (Administration Building), 2 (Bachelor Enlisted Men's Quarters), 3 (General Services/Commissary), 4 (Bachelor Enlisted Men's Quarters), 16 (Medical Clinic), 17 (Bachelor Officers' Quarters), 18 (Post Office and Theater), 30 (Main Gatehouse), 31 (Sentry House) and 94 (Chapel). Most are low-slung buildings with smooth stucco walls, curved corners and parapets, pronounced entry blocks, aluminum ribbon windows, glass block accent windows, "speed lines," colonnades with curved canopies, and occasional sculptural elements, including Pegasus figures on Buildings 2 and 4 and eagles on Building 3. Interior detailing is often quite fine, featuring terrazzo flooring, glass block and nickel-plated stair balustrades **(Figure 28)**

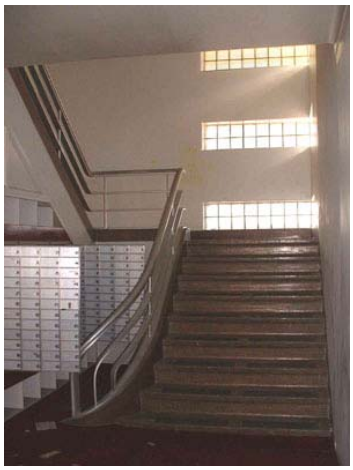

Figure 28. Interior stair, Building 17, 2004

Comprised of eighteen two-story Officers' Quarters and thirty one-story Non-commissioned Officers' Quarters, the Residential Area has a greater number of buildings than the other four sub-areas. However, unlike the other sub-areas, there are only two variants of contributing buildings in the Residential Area: the Married Officers' Quarters, also known as the "Big Whites," and the Non-Commissioned Officers' Quarters (NCO Quarters). The Big Whites are located in the distinctive beehive shaped network of curvilinear streets in the northeastern corner of the Historic District. Set down in a landscaped park-like setting, the Big Whites are large, two-story, hip-roofed structures with projecting sun room and

Figure 29. Officers' Quarters, "Big White," 2004

garage wings. Based largely on standardized military plans, the Big Whites closely resemble the classic American "foursquare" house. Typically rendered in the Neoclassical style on military installations in other parts of the country, the design of the Officers' Quarters at NAS Alameda was modified to blend in with the Streamline Moderne character of the base. Coated in smooth, white-painted stucco, the Big Whites feature distinctive Moderne elements, such as vertical bands of small rectangular windows and the absence of applied ornament. Instead, ornamental detailing is provided by geometric features, such as the circular openings punched into the portico canopy supports. The NCO Quarters, also based on standardized Navy plans, are much smaller and more utilitarian than the Officers' Quarters. Located on both sides of Corpus Christi Road and along the south side of Pensacola Lane, the NCO Quarters feature shallow-pitched hipped roofs (which appear flat), recessed porches and broad roof overhangs. All buildings have double-hung wood windows and wood doors. Few alterations have taken place over time to either the buildings or to the landscaping, resulting in a high level of integrity in the Residential Area.

Sandwiched between the Hangars Areas and the Administrative Core, the Shops Area is a support zone for the the Hangars. As utilitarian buildings used primarily for machining aircraft parts or storing goods intended for shipment overseas, the buildings of the Shops Area received comparatively little attention in regard to their appearance. The Shops Area has also undergone more ad hoc alterations than any other sub-area. During the Second World War, the area was subjected to massive new construction projects that infilled the formerly open east-west axis and added large additions to Building 5 (Repair and Assembly Shop). Contributing buildings in the Shops Area includes Buildings 6 (Public Works Garage and Firehouse), 8 (General Storehouse), 9 (Aircraft Storehouse), 42 (Fuel Chemical Lab and Office), 43 (Weapons Building), 44 (unknown), 91 (Shipping Storehouse), 92 (Packing/Shipping), 102 (Ordnance Building) and 114 (Machine Shop). Six of these structures (Buildings 6, 8, 9, 42, 43, and 44) are concrete or steel-framed permanent buildings that were part of the original 1938 plan. The rest are semi-permanent wood-frame structures that were not part of the original plan but were built to serve for the duration of the Second World War. On axis with the north-south mall, Building 6 shares architectural design elements in common with the buildings of the Administrative Core. Unique in the Shops Area, Building 9 is a steel-frame warehouse that resembles the nearby hangars in its construction and appearance. Buildings 8 and 9 are massive concrete structures with sparse ornamentation **(Figure 30)**. Buildings 91, 92, 102 and 114 are semi-permanent wood-frame buildings with flat or gable roofs, rustic channel siding and no ornamentation. Steel or wood industrial sash and sliding or hinged doors are nearly

Figure 30. Building 9, 2004

Figure 31. Building 40 (Seaplane Hangar), 2004

universal in the Shops Area.

Despite their functional purpose, the two rows of massive identical hangars along the southern and western boundaries of the Historic District comprise an indispensable character-defining feature of NAS Alameda. Although otherwise purely functional buildings, the hangars incorporate elements of the Streamline Moderne style, in particular in the stepped massing of their stucco exteriors. Contributors within the Hangars Area include Hangars 20, 21, 22, 23, 39, 40, 41 and Building 77 (Passenger Terminal). All of the hangars are large, steel-framed buildings with massive concrete bulkhead foundations; the hangars are based on standardized plans developed by Detroit architect Albert Kahn **(Figure 31)**. Additional character-defining features include large telescoping doors, the stepped massing of the corner pylons (which serve as door pockets), monitor roofs, open central workspaces bridged over by rows of steel trusses and steel industrial windows. The only building that departs from this function and aesthetic is Building 77. Constructed to serve as a passenger terminal, Building 77 is designed in a mode similar to the buildings of the Administrative Core.

VI. HISTORIC PRESERVATION STRATEGY

Purpose
The Naval Air Station Alameda Historic District is facing a critical transformation as ownership is transferred from the Navy to the City of Alameda. Over the past year, from 2004 to 2005, the City has created the Preliminary Development Concept (PDC) outlining a plan to integrate NAS Alameda with the remainder of the island city, by adding residential and commercial uses in existing structures and newly constructed buildings. The PDC has undertaken a study of a host of constraints affecting property development, including economic feasibility, environmental contamination, the 100-year flood plain, young bay mud, a wildlife refuge buffer, Tidelands Trust, Alameda housing policies, traffic impacts, timing and phasing of transfer from the Navy, and historic preservation. In this context, it is important that a historic preservation plan be put in place to outline the goals, standards, process and policies required to ensure the appropriate level of protection and enhancement of the historic resource. This section is intended to provide a historic preservation strategy to initiate that process. It begins with a summary of the significance of resources and their proposed treatment under the PDC, and ends with recommendations for the redevelopment and reuse of the Historic District.

Summary of Significance and Preliminary Development Concept (PDC) Policy by Sub-Area

The Administrative Core
The Administrative Core is the heart of the NAS Alameda Historic District. Most of the extant buildings and landscape elements were part of the original plans drawn up by the Bureau of Yards & Docks and were built during the earliest construction campaign between 1938 and 1940. Few of these contributors have undergone substantial alterations, resulting in the Historic District's high level of integrity. The Administrative Core contains several wood-frame semi-permanent buildings that do not share the same level of design significance as the original buildings. Although they are contributors to the Historic District, the Navy proposed to demolish six of these semi-permanent buildings in 1996. A Memorandum of Agreement signed by the City, the Navy, State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) in April 1996 acknowledges that while demolishing Buildings 75A, 115, 116, 130, 135 and 137 would have an effect on the Historic District, HABS recordation would be an appropriate mitigation measure.[68]

The Administrative Core is retained in large part in the PDC and given a prominent place as the civic center of the new community (**Figure 32**). Of the nineteen contributing buildings in the sub-area, twelve are to be

[68] Memorandum of Agreement Submitted to the Advisory Council on Historic Preservation Pursuant to 36 CFR, Section 800.6(a), April 12, 1996.

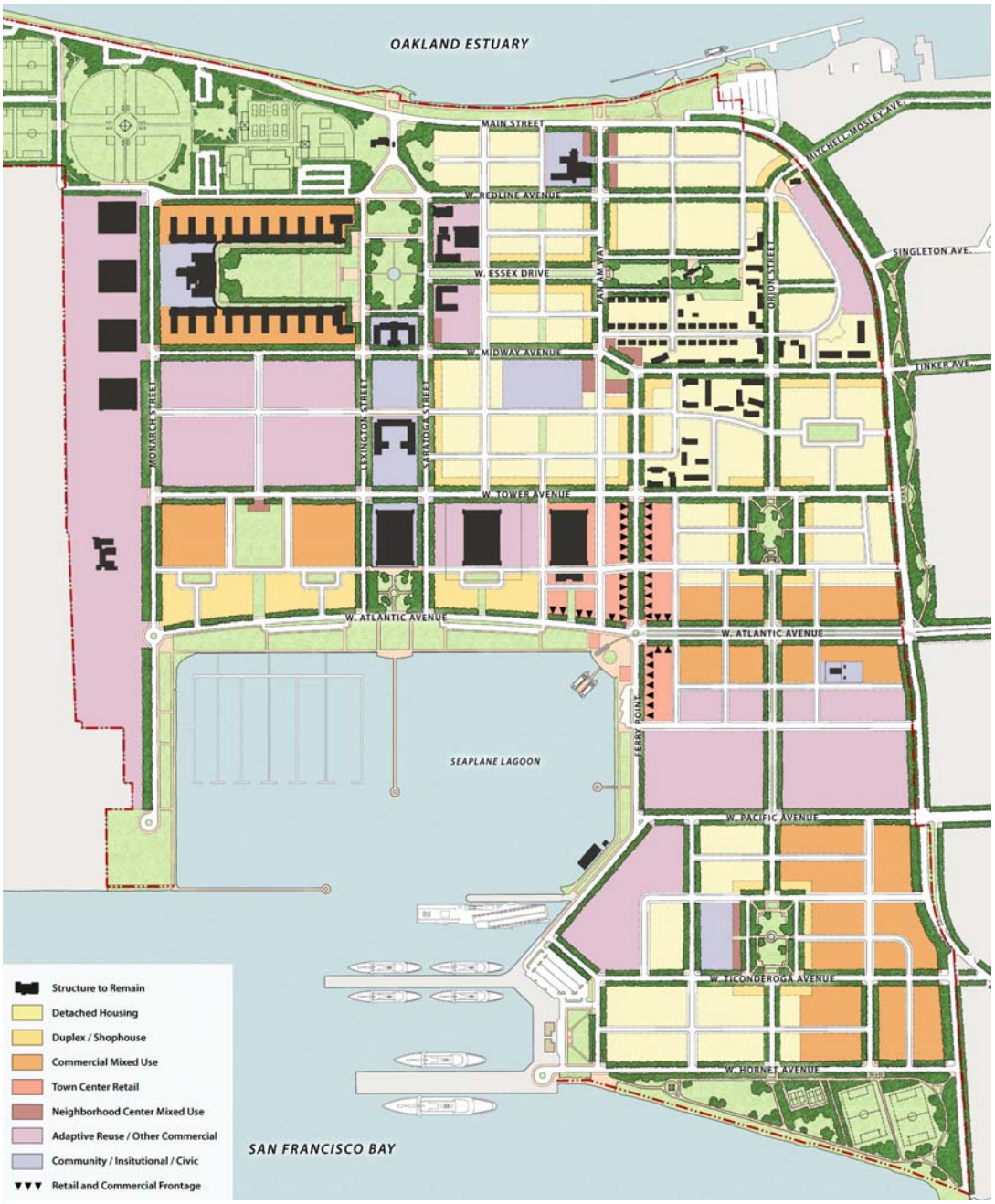

Figure 32. Preliminary Development Concept
Courtesy of ROMA Design Group

rehabilitated according to the Secretary of Interior's Standards and used for civic, office, community, and possibly work-live purposes. Alameda City Hall West will continue to serve as a civic center in Building 1, which is the original Main Administration Building and the primary structure on the site. The two main intersecting malls will be maintained in their present configuration, street framework and surroundings, thereby preserving the important symbolic core and the two primary axes of the site plan. The original entrance to the former base along the north-south axis is also preserved as an important gateway to Alameda Point. One contributing building, the Bachelor Officer's Quarters (Building 17), and the six contributors that were the subject of the 1996 MOA (Buildings 75A, 115, 116, 130, 135 and 137), will be demolished. In their place, as well as north of Redline Avenue, new single family residential units will be constructed. Seventy new units will be constructed on the current site of the Bachelor Officer's Quarters.

The Residential Area
Devoted entirely to housing, the Residential Area is the smallest and most homogeneous of the four sub-areas identified at NAS Alameda. Of the two contributing building types found there, the Officers' Quarters and the NCO Quarters, the former are more architecturally significant, although both contribute to the historical understanding of the former base. The Admiral's House, a larger version of the Officers' Quarters, is placed at the hinge between the two housing types and within a green park at the terminus of West Essex Drive. The Residential Area is also the only part of the base to feature smaller, domestic-scaled buildings exclusively. After the Administrative Core, the Residential Area features the most extensive and intact landscaping of any of the five sub-areas. Finally, as the only sub-area of NAS Alameda that has undergone few programmatic changes over time, the Residential Area retains a higher overall degree of integrity than the other sub-areas.

The thirty identical NCO Quarters will be reused for housing in the PDC. The Admiral's House will be rehabilitated for residential or community use, and will retain its setting within a park environment. The park will continue to serve as the eastern terminus of the east-west axis, enhanced with new landscaping and reshaped into a rectilinear configuration. The 18 Officer Quarters, known as the Big Whites, and the associated curvilinear road pattern will be demolished and replaced with approximately 120 new housing units following a linear street layout. New compacted fill, which will result in a new higher grade, is planned to address young bay mud and the 100-year flood plane that falls within the zone of the Big Whites. Adjacent to the Residential Area, outside of the Historic District boundaries, more residential development is planned, which will consist of mostly single family units and reuse of existing 1960's-era residential buildings.

The Shops Area
Designed to serve as a staging area for the Hangars and the supply ships, the Shops Area was planned with flexibility in mind, and originally included unidentified vacant space. During the Second World War, several wood-frame semi-permanent buildings went up around the more substantial permanent warehouses and shops. As a result, the Shops Area remains the most heterogeneous of the five sub-areas and the one that retains the lowest degree of integrity. According to Steven Mikesell's 1997 *Guide to Preserving the Character of the Naval Air Station Alameda Historic District:*

> The Shops Area was given the least attention of all areas of the original NAS Alameda, at least with respect to its architectural detail. The Shops Area buildings were tucked away from view, behind the Administrative Core, and had little public use or visibility. The shops, in short, were designed strictly for function rather than appearance. Nonetheless, the shops buildings do share some architectural features and elements with other parts of the base, including the hangars and the Administrative Core...[69]

[69] Steven Mikesell, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* (Prepared for Naval Facilities Engineering Command, San Bruno, CA, 1997), p. 57.

Other studies have reached similar conclusions about the Shops Area. Although historically significant, the several semi-permanent buildings contribute less to the area architecturally and even detract from the overall Streamline Moderne style of the original buildings. Steven Mikesell's *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* states:

> It would be appropriate to consider policies that treat the wood-frame buildings (Buildings 91, 92, 101, 102 and 114) with a wider degree of latitude than with the concrete buildings and Building 9. The World War II-era temporary buildings were built to a much lower standard and are generally not consistent with the overall design of the base. Measured in terms of the uniform design of the original base, the World War II-era wood frame buildings make the least contribution to the overall quality of the historic district.[70]

Although it has been confirmed that Buildings 91, 92, 101, 102, and 114 are designated "semi-permanent" rather than "temporary" on Navy property record cards, it is widely accepted that these buildings do not exhibit the architectural integrity of the permanent buildings on the base.[71]

The PDC does acknowledge the Shops Area as the least historically significant of the sub-areas and most difficult collection of buildings to reuse, given their obsolete purpose and tremendous scale. The PDC proposes the most dramatic alteration to this zone of the Historic District, removing 9 of the 10 contributing structures and replacing the buildings with residential units and commercial buildings. The most strategic and architecturally consistent of the 10 contributing buildings, the Fire Station (Building 6), is retained and will continue to operate as a fire station.

The Hangars Area
The Seaplane and Landplane Hangars Areas are both relatively homogenous, consisting of two rows of identical hangars and the former Air Terminal (Building 77). The only non-contributors in the area are Buildings 11 and 12 and their linking wing, Building 400. Although the Streamline Moderne architectural treatment of the Administrative Core buildings is not found at the hangars, the sheer scale, the stacking track doors, as well as the structural engineering involved with the hangars, deserve recognition. Furthermore, as it appears that the hangars were based on the standardized plans drawn up by Detroit architect Albert Kahn, they are the only buildings on the base that can be attributed to an individual architect. Visible from much of the Bay, the hangars embody the purpose and historical significance of NAS Alameda for many people.

The PDC retains the Air Terminal Building (Building 77) and all seaplane and landplane hangars identified as contributing structures, a total of 8 hangars. Commercial and retail uses are proposed for the reuse of the large structures, with rehabilitation according to the Secretary of Interior's Standards. A few current uses, including the Alameda Naval Air Museum in Building 77, are to remain. Additional commercial infill development is planned for the Seaplane Hangar Area, along with a revitalized waterfront and a new public space consisting of green and hard space areas fronting the Seaplane Lagoon. The area adjoining the northeastern corner of the Seaplane Lagoon is identified as the Alameda Point's commercial and transportation hub, the Town Center, which includes contributing structures, Building 41 and 77. The Town Center and the waterfront are served by an extension of West Atlantic Avenue in-between the Seaplane Hangars and the Lagoon. The PDC recognizes

[70] Ibid., p. 67.
[71] Temporary World War II-era buildings are covered by a 1986 nationwide programmatic agreement, prepared and signed by the Department of Defense (DoD), Advisory Council on Historic Preservation (ACHP) and National Conference of State Historic Preservation Officers (NCSHPO) permitting any (DoD) branch to demolish any buildings classified as "temporary" that date from the World War II era (1939-1945) without review under standard provisions of Section 106 of the National Historic Preservation Act. Refer to U.S. Army Corps of Engineers, *California Historic Military Buildings and Structures Inventory* (Washington, D.C.: March 2000), p. 7-2.

the importance of the north-south axis extending through the District to the Oakland Estuary and the Seaplane Lagoon, and protects key view corridors looking south along Lexington and Saratoga Streets, and looking west towards San Francisco along Redline and Midway Avenues.

For a complete list of all buildings currently at NAS Alameda, summary information, and ratings of significance and integrity, see the Property Database in **Appendix F**.

Recommendations for the Redevelopment and Re-Use of the NAS Alameda Historic District

Goal
The goal for historic preservation planning is to ensure the protection and future preservation of historic and cultural resources. NAS Alameda Historic District, as a City of Alameda monument and a National Register eligible Historic District, is a property of historic significance with ties to important local and national historic trends. The protection of the resource will enable continued observation, interpretation, and understanding of its contribution to, as well as its unique place within, our society.

All projects within the eligible Historic District boundary should comply with *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (The Standards) (**Appendix G**). The Standards outline the Department of the Interior's advice on responsible preservation practice and are to be used when property owners seek certification for Federal tax benefits. They provide a consistent philosophical basis for the treatment of historic properties, be they buildings, structures, sites, objects, districts, or landscapes – all components found within the NAS Alameda Historic District. The Standards describe the following approach to rehabilitation:

1. Identify, retain and preserve character-defining features
2. Protect and maintain important materials and features
3. Repair materials and features
4. Replace deteriorated materials and features and design for replacement of missing features
5. Design alterations and additions in such a way so as not to change, obscure, damage or destroy character-defining features
6. Provide for life-safety and accessibility code requirements in a manner that does not radically change, obscure, damage or destroy character-defining elements

The Standards are referenced in the City of Alameda's Historical Preservation Ordinance as the guiding rule in determining whether to issue a Certificate of Approval for repairs and alterations to historical monuments.[72] The designation of a historic monument, according to the City's Ordinance, is discussed as follows:

> The purpose of this section is to promote the educational, cultural, and economic welfare of the City by preserving and protecting historic structures, sites, monuments, streets, squares, and neighborhoods which serve as visible reminders of the history and cultural heritage of the City, State or Nation. Furthermore, it is the purpose of this chapter to strengthen the economy of the City by stabilizing and improving property values in historic areas, and to encourage new buildings and developments that will be harmonious with the existing buildings and squares.[73]

[72] City of Alameda Historical Preservation Ordinance, 13-21.4.b.1.
[73] City of Alameda Historical Preservation Ordinance, 13-21.1.

The Alameda Point Element, Chapter 9 of the General Plan, currently outlines the following policies with respect to preservation of the historic resources within the NAS Alameda Historic District:

> *Guiding Policy: Historic Resources*
> 9.5.g Preserve Alameda Point's Historic District, buildings, development patterns, and open spaces.
>
> *Implementing Policies: Historic Resources*
> 9.5.h Preserve to the greatest extent possible buildings within the Alameda Point Historic District to maintain the neighborhood and historic character.
> 9.5.i Provide a mechanism for timely and expedient reviews to ensure that contributing buildings in the Historic District are not left vacant and are managed in compliance with all applicable regulations.
> 9.5.j Preserve the historic sense of place of the Historic District by preserving the historic pattern of streets and open spaces in the area.
> 9.5.k Minimize impacts on the architectural integrity of individual contributing buildings and structures.
> 9.5.l Make every reasonable effort to incorporate compatible adaptive uses or uses for which the buildings were originally designed…
> 9.5.m Prepare design guidelines and specifications for new construction within and adjacent to the Historic District that ensures compatibility of new construction with the character of the Historic District.[74]

Building upon this past work, the PDC recommends the following historic preservation strategies be used to guide future City actions and proposed development projects in the NAS Alameda Historic District. These strategies aim to protect and reinforce significant character-defining features while encouraging re-use and providing opportunities for new development. Care for the District's unique historic identity is stipulated while maintaining Alameda Point's future viability.

Strategy 1:
Prioritize Buildings for Stabilization
Since the Navy closed NAS Alameda in 1997, and base facilities have become available for public lease, many buildings have become filled with new tenants and have received architectural upgrades. Those structures that have not had the benefit of occupants and have remained vacant tend to be the very large structures with inflexible spaces. Examples of contributing buildings in this category include the Mess Hall (Building 3), and one of the Bachelor Enlisted Men's Quarters (Building 4). These buildings do not receive regular maintenance and have witnessed deterioration. Not only will the deferral of maintenance continue to compound the problem and add to the cost of rehabilitation in the future, but it places the condition of the historic property into question. It is recommended that further analysis be performed to determine how best to re-establish a stabilization and maintenance program, and which buildings according to the PDC will require this work. Immediate stabilization and sustained maintenance of these unoccupied buildings is the first and foremost items in need of action. Included in **Appendix H** is *NPS Preservation Brief 31: Mothballing Historic Buildings*, a primary reference on this topic.

Strategy 2:
Distinguish the NAS Alameda Historic District as a Unique Place within the Fabric of the City
The western end of Alameda island has, from the City's earliest documented history, been the site of notable industrial, rail, and aviation activity. The area has always been a zone primarily comprised of industry and transportation, while the remainder of the island supported the growth of residential, civic and commercial

[74] City of Alameda, 1991 General Plan as amended 2003, Chapter 9: Alameda Point, p. 15-16.

areas. It has a unique history and footprint, evident today in the site plan and building fabric that is an important and rare example of a Naval base designed in the Steamline Moderne style. This differentiation from the tree-lined neighborhood streets and Victorian-styled homes of adjacent areas is inherent in what is character-defining about the Historic District.

One of the stated goals of the NAS Community Reuse Plan is to preserve "the character of NAS whenever possible and appropriate while integrating the base into the culture and tradition of the city".[75] Continuing, the Community Reuse Plan looks to "achieve complete integration of the former NAS site with the rest of the island of Alameda, this is to be a seamless integration of the many neighborhoods, open space, and the best qualities of the existing city".[76] Redevelopment of the Historic District should maintain the character, integrity and singular quality of the historic resource while knitting the land into the fabric of the city. It is appropriate to consider thresholds and gateways that allow connection and porosity but acknowledge and allow for a unique historic environment to coexist and thrive. The objective is to remove barriers and fences, provide connections, support the continuation of neighborhood qualities, and make accessible Alameda Point's revitalized public amenities while fostering a recognition and protection of its valued historic character.

Strategy 3:
Restore and Reinforce the Site Planning Concepts Reflected in the Original 1940 Plan
The original master plan for NAS Alameda served as the organizational framework for the early development of the base and is a prime example of the Total Base Design concept, wherein architecture, site planning and landscape are integrated into a complete ensemble. The influence of City Beautiful planning is apparent, resulting in the most significant aspects of the plan: the landscaped cross axes, progression and hierarchy along the axes, symmetrical buildings or groupings, cohesive architectural vocabulary, and unified landscape treatment. This organization can equally be effective in serving as a framework and guide for future development. Specific concepts to address or reinforce consistent with the PDC include:

- North – South Axis and East – West Axis
- View Corridors
- Street Pattern and Circulation
- Central Landscaped Malls
- Landscape treatments including boulevard landscaping on W. Essex Road
- Relationship of Buildings and Open Spaces to Axes
- Relationship of the plan to the Seaplane Lagoon

Strategy 4:
Retain Significant Use Relationships Reflected in the Original Five Sub-Areas
The purposeful arrangement of functions, indicative of the Total Base Design practice, is found in the five sub-areas: the Administrative Core, the Shops Area, the Residential Area, the Landplane Hangar Area and the Seaplane Hangar Area. These distinctive zones, with the associated building and landscape treatments, should be understood, even as change and modification occurs. Beyond their historic association, they provide logical arrangement of building types, scale, edges, and massing variation to the historic area.

Where significant alteration of a sub-area is required, it is recommended to focus the alteration on areas that have historically experienced modification. Following this approach, the PDC proposes the highest percentage of demolition and new development in the Shops Area of the District, where buildings departed from the original master plan configuration and the architectural treatment was greatly simplified. The new PDC

[75] EDAW, *NAS Community Reuse Plan*, prepared for the Alameda Reuse and Redevelopment Authority, adopted January 31, 1996, p. 1-10.
[76] Ibid.

buildings in this area include the tallest new buildings and most densely developed program, including shop houses and commercial buildings, to re-establish compatible scale and volume characteristics.

With respect to functional uses, a compatible use to the building's historic use is to be employed with rehabilitation wherever feasible with the PDC. This is best illustrated in the re-use of the Administration Building (Building 1), a highly significant building at the center of the Historic District. The PDC proposes to maintain the City Hall West offices in this location and define the zone as a civic center in keeping with the nature and significance of the original historic use. The facing landscaped mall will be made available for large public gatherings and community events, a compatible use for a former parade ground.

Strategy 5:
Restore and Revitalize Historic District Landscapes and Open Spaces
Within the Historic District, the landscape serves to define the ceremonial entry and central open space. Two large rectangular intersecting green lawns orient along the main axes, originally comprised of more formal plantings. Decorative edges are formed with shrubs and trees, extending along streets into connecting areas and smaller entry courts. In the residential sub-area the green again becomes predominant, providing a park-like setting for residential quarters. Throughout, the planting material reflects the scale and function of the spaces.

It is recommended that a study of the Historic District landscape be completed to provide assessment and suggested guidelines for appropriate landscape rehabilitation. With this information, all new landscape plans should be formulated to reinforce the concepts of the original plan, provide for the restoration of the significant landscape features, and incorporate compatible new plant material in keeping with the historic plan. Monuments, flagpoles, and signage should be addressed and carefully integrated. The open space provided by the Seaplane Lagoon is equally important to consider. The open flat nature of the area in front of the grand row of seaplane hangars creates an impressive view corridor which must be considered in the design for improved public access and utilization of the waterfront on this important edge.

Strategy 6:
Encourage and Support Re-Use and Rehabilitation of Contributing Structures
Re-use of buildings is the first goal of any preservation plan. Occupancy brings not only life and purpose to the structure, but necessary care and maintenance. The most ideal use is the same as the original use of the building. However, a change in use is often required, in which case rehabilitation is to be followed. Rehabilitation is defined by the Standards as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.[77]

Currently the Mikesell document, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District*, serves as guidelines for the NAS Alameda Historic District, providing a description of character-defining features and examples of suitable and non-suitable treatments to selected buildings in the District. Although the document has been an invaluable tool for the City, and has been recognized by the State Office of Historic Preservation as a guiding document, an updated, comprehensive set of re-use guidelines is suggested to accompany the PDC. Re-use guidelines outline information and conditions found in specific buildings to facilitate and assist owners and tenants with the re-use process. Data should be tailored to the needs of the building, but generally should include:

[77] National Park Service, *The Secretary of Interior's Standards for the Treatment of Historic Properties*, Standards for Rehabilitation, 1995, http://www.cr.nps.gov/hps/tps/secstan5.htm.

- Building summary information
- Identification of intact historic fabric
- Conditions assessment and recommendations
- Parameters for rehabilitation, repair, and maintenance work
- Pertinent code issues such as life-safety, accessibility and energy requirements
- State Historic Building Code
- Mechanical, electrical, and plumbing systems
- Preservation incentives, including tax-credits and grants

Strategy 7:
Guide New Development within the Historic District
When new buildings are introduced into a historic context the overarching aim is to have the new work exhibit differentiated, yet compatible design with the historic. The Standards address new construction with Rehabilitation Standard number 9, calling for compatibility with historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.[78]

Design guidelines for new development are necessary to establish a clear policy on appropriate design within the Historic District. Guidelines are used as a design aid in determining acceptable new construction that preserves the character of the District. They should allow for creative design to occur, and not prescribe a certain architectural style but rather encourage an understanding of and compatibility with the Streamline Moderne architectural vocabulary in the District. In the process of formulating Guidelines, interested parties can analyze the issue of compatibility and reach consensus on acceptable architectural review processes. In addition to architectural design issues, Guidelines for NAS Alameda can specify planning, zoning, and landscape criteria for new development that are equally important in preserving the character of the Historic District (**Strategies 3, 4 and 5**).

Strategy 8:
Manage the Historic Resource
The responsible management of historic resources will provide innumerable benefits to our community. Proper knowledge, planning, tools, and communication are key elements for the task, resulting in clear policies, roles, responsibilities, and anticipated funding mechanisms to manage development. Acceptable management practices of historic resources should be analyzed and stipulated; financial sources available for rehabilitation, low-income housing, and other uses which may involve historic resources studied and identified; marketing strategies crafted; and a roadmap for implementing sound management of the historic resource adopted. With these efforts, future development and growth as outlined in the PDC can be achieved in collaboration with historic preservation.

VII. CONCLUSION

The NAS Alameda Historic District is a rare asset that is facing an unprecedented period of change. In this period of planning and review there is an opportunity to truly recognize the historic significance of the resource and to plan for preservation. The aim is to protect and reinforce significant character-defining features while encouraging re-use and providing opportunity for new development. In preserving the historic resource we broaden our knowledge, we retain the opportunity for future understanding, and we enhance appreciation of our cultural heritage.

[78] Ibid.

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